DOCUMENT RESUME

ED 362 706 CE 064 734

AUTHOR Atkinson, John; And Others
TITLE The Basic Skills Needed at Work: A Directory. A Companion Report to "Basic Skills and Jobs."
INSTITUTION Institute of Manpower Studies, London (England).
SPONS AGENCY Adult Literacy and Basic Skills Unit, London (England).
REPORT NO ISBN-1-870741-63-3
PUB DATE Mar 93
NOTE 73p.; For a companion report, see CE 064 733.
AVAILABLE FROM Adult Literacy and Basic Skills Unit, Kingsbourne House, 229/231 High Holborn, London WC1V 7DA, England, United Kingdom (6 British pounds).
PUB TYPE Reference Materials - Directories/Catalogs (132) -- Statistical Data (110)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Basic Skills; *Educational Needs; Employment Potential; *Employment Qualifications; Foreign Countries; *Job Skills; *Literacy Education; National Surveys; Numeracy; Tables (Data)
IDENTIFIERS England; Wales; *Workplace Literacy

ABSTRACT

This directory details the requirements for and supply of basic skills in the work force of England and Wales as determined in a survey of 73 Training and Enterprise Councils that covered approximately 1.3 million jobs below the professional and technical level in 24,000 establishments. The first chapter describes the survey and the structure of the directory. Chapter 2 covers the overall level of demand for literacy and numeracy skills and examines how skill requirements vary form job to job. Data are summarized by 49 occupations. Examined in chapter 3 are the trends in the demand for basic skills and the importance of various job-related, workplace-related, and communication factors in influencing overall patterns of basic skill demands. Chapter 4 considered recent changes in employers' demands for basic skills in the workplace. In chapter 5, the adequacy of the current basic skills supply is reviewed from the standpoints of (1) employers' perceptions of their own employees' reading, writing, numeracy, and oral communications skills; and (2) their perceptions of labor supply in the labor market as a whole. A description of the research methods used is appended along with technical information on the survey. The report includes 23 figures and 37 tables. (MN)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 362 706

THE BASIC SKILLS NEEDED AT WORK

A DIRECTORY

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

K Scott

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CE 064 734

NIAL
The Basic Skills Unit

IMS
INSTITUTE OF MANPOWER STUDIES

BEST COPY AVAILABLE

THE BASIC SKILLS NEEDED AT WORK: A DIRECTORY

A Companion Report to 'Basic Skills and Jobs'

Prepared by
the Institute of Manpower Studies
on behalf of
the Adult Literacy and Basic Skills Unit

JOHN ATKINSON
MARK SPILSBURY
& MATTHEW WILLIAMS

ALBSU
The Basic Skills Unit

IMS
INSTITUTE OF MANPOWER STUDIES

© The Adult Literacy and Basic Skills Unit,
Kingsbourne House, 229-231 High Holborn, London WC1V 7DA.

All rights reserved. No part of this publication may be photocopied,
recorded or otherwise reproduced, stored in a retrieval system
or transmitted in any form or by any electronic or mechanical means
without the prior permission of the copyright owner.

ISBN 1 870741 63 3

Design: Studio 21

Published March 1993

Contents

Chapter 1
Introduction 4

Chapter 2
Basic Skills Needs 7

Chapter 3
The Sources of Basic Skill Requirements 42

Chapter 4
Recent Changes in the Demand for Basic Skills at the Workplace 49

Chapter 5
Basic Skills Supply 57

Appendix 1
Research Methods and Sample 69

Introduction

1.1 The Directory of Basic Skills

This Directory details the requirements for, and the supply of, basic skills in the workforce of England and Wales. It is the companion volume to *'Basic Skills and Jobs'*, published by the Adult Literacy and Basic Skills Unit (ALBSU) in March 1993. Both reports draw their data from the same research (discussed below), but here the results are presented at a more detailed level. The Directory is intended to supplement 'Basic Skills and Jobs', and is written mainly for reference purposes, particularly when referring to detailed occupational sub-groups.

1.2 The Basic Skills at Work Research

By basic skills we mean reading, writing, numeracy and oral communication skills. These are evaluated throughout in terms of the Communication Skills and Numeracy Standards, drawn up by ALBSU, as part of their Basic Skills Accreditation Initiative. The research was only concerned with basic skills among occupations below the professional and technical level. It did not therefore deal with the top third of the labour market, made up of managerial, professional and technical occupations.

The research presented in this Directory is the first of three stages which make up the Basic Skills at Work Programme. Its overall purpose is to provide evidence on the basic skill needs of local employers, in order to assist the implementation of practical initiatives to improve the balance between local supply of, and demand for, basic skills.

In narrower terms, this research has three principal aims:

- to establish the standards of literacy, oral communications and numeracy required of employees in a range of jobs
- on this basis, to establish how adequately these standards are met by employees and job-seekers, and
- to establish the various sources of these requirements for basic skills at the workplace (ie job-related, workplace-related, etc), and to indicate whether such requirements are rising or falling.

The focus of the research is on employers' perceptions of the skill needs of their workers. It does not try to measure the skill content of jobs independently of these perceptions. As a result, it cannot tell us that job A requires skills X, Y and Z. It can only tell us that employers believe that it does. Since it is reasonable to suppose that employers act on their beliefs to inform hiring and training decisions, this approach has the advantage that it reflects the real world of the labour market.

1.3 Research Methods and Sample

In this section of the report we briefly outline the research methods used, and give some details about the sample of responding establishments on which the results are based. A more detailed description of the methodology is given in Appendix 1.

The research was actually conducted as 73 separate exercises for 73 local Training and Enterprise Councils (TECs), and each TEC has already received a report on basic skills provision in its own area. However, a common approach was followed throughout, and this allows the results to be combined here to provide a national perspective. The research was based on a postal questionnaire survey to a sample of about a thousand employing establishments in each TEC area. In all, we approached 69,282 establishments throughout England and Wales, selected randomly but structured to reflect the sectoral composition of employment in each TEC area. The sample was also structured by employment size of establishments, with the aim of ensuring a reasonable spread of small, medium and large employers. The sampling frame used was British Telecom's 'Connections in Business'. The physical boundaries of each survey reflected those of the TEC, according to definitions it supplied. The questionnaire was addressed to 'The Personnel Director' in establishments with more than 100 employees, and to 'The Managing Director' in smaller ones.

There can be important differences, even between apparently fairly similar jobs, in the basic skills which are needed. As a result, an important aspect of this research which must be borne in mind in interpreting the results, is that each respondent was asked to complete the questionnaire only on behalf of his/her biggest group of employees below the professional/technical level. This has the advantage of focusing employers' minds on a specific group of workers, and so cutting through some of the inter-occupational variation which might have 'muddied' the picture otherwise. It has two important disadvantages, however. Firstly, it means that any given employer may not experience problems with the basic skills competence of employees in this biggest group, while still suffering problems for another group. So the results, particularly regarding the adequacy of supply in

Chapter 5, need to be considered at the level of the labour market as a whole, rather than at the level of particular establishments. The second disadvantage was that the relatively small scale of this survey within each TEC area precluded a very fine division of the data by job when we were reporting on that TEC area alone. Throughout the TEC reports, we grouped all the jobs into six categories, as follows:

- clerical and secretarial jobs (SOC Group 4)
- personal service jobs (SOC Group 6)
- selling jobs (SOC Group 7)
- skilled or craft-level manual jobs (SOC Group 5)
- plant, vehicle, and machine operatives (SOC Group 8) and
- other manual jobs (SOC Group 9).

We have continued this practice in the national report, *'Basic Skills and Jobs'* to enable comparability between the individual TEC reports and the national reports. However, in this Directory, we present a more detailed breakdown by the 49 sub-major groups which make up these six Standard Occupational Groups (SOC).

Many of the tables in this report are quite complex. In order to make their presentation easier for the reader we have not cited the separate numbers on which the percentages for each category of response are based. We recognise that this is not entirely satisfactory, but think that it is justified in the light of the need to keep the tables reasonably accessible. It should be noted that the question response rates to this survey were very high (i.e. almost all those employers who did respond, answered all the questions), and so the numbers answering each question vary very little anyway. This reduces the need to continually cite separate 'n's. In addition, with the same aim of keeping things simple, we have reduced percentages to the nearest round number.

As a result of these conventions, the percentages cited do not always sum to 100, and it is important that the basic structure of the achieved sample should always be kept in mind when interpreting the results which are presented in the substantive chapters.

Table 1.1 shows the sectoral, size, and occupational composition of the achieved sample. It is worth noting that:

- a response rate of 35 per cent was achieved, which we believe is a reasonably good response rate for surveys of this kind and particularly of this complexity. The composition of the achieved sample and questions of non-response bias are discussed in the Appendix, but in short, there was evident bias towards non-metropolitan areas, caused by lower response rates in urban areas. However, our analysis shows that the physical character of the external environment is not of great importance in influencing basic skill needs
- the sectoral spread of the sample is a reasonable match with the sectoral distribution of employees in England and Wales as a whole
- we have achieved our aim of having a reasonable range of sizes represented
- analysis of response show no particular bias in response rate in terms of either size of employer or industrial sector.

1.4 Structure of the Directory

The Directory has been written to follow the structure of *'Basic Skills and Jobs'*, and is as follows:

Chapter 2 considers the overall level of demand for reading, writing, numeracy and oral communication skills and examines how the need for them varies from job to job, and from workplace to workplace. It then looks at each of the four skills in turn to establish the levels of attainment which different jobs are thought to require.

Chapter 3 turns to the sources of demand for these basic skills, asking which factors require employees to have the necessary skills, and how important is each factor in influencing the overall pattern of demand.

Chapter 4 considers recent changes to employers' demand for basic skills in the workforce. We ask whether this demand is increasing and identify factors which might be causing such change.

Finally, in Chapter 5 we review the adequacy of current basic skills supply. Here we are concerned with employers' perceptions about the adequacy of their workforces' reading, writing, numeracy and oral communication skills and, subsequently, their similar perceptions of labour supply in the external labour market as a whole.

Appendix 1 provides more details about the research methods and sample considerations.

Table 1.1: **Composition of Achieved Sample By Sector, Employment Size and Occupation in England & Wales**

	Actual	Achieved Sample (Establishments)	
Total	**Employees 15.6m**	**N = 24075**	**% = 100%**
BY SECTOR	**% of Employees**		
Agriculture	1.4	294	1
Energy and Water Supply	1.9	195	1
Mineral and Ore Extraction	3.4	566	2
Metal Goods, Engineering, Vehicles	10.7	2216	9
Other Manufacturing	9.3	3142	13
Construction	4.6	972	4
Distribution, Hotels, Catering	21.1	5392	22
Transport and Communications	6.1	1176	5
Financial Services	12.2	2336	10
Other Services	29.3	7161	30
Production Industries	31.3	7385	31
Service Industries	68.7	16065	67
Sector Not Given	0	62	3
BY EMPLOYMENT SIZE	**% Establishments**		
Under 20	—	5528	23
20 – 49	94.4 (1–49 staff)	7849	33
50 – 99	3	4525	19
100 – 199	1.5	2720	11
200+	1.1	2811	12
Size Not Given	0	642	3
BY OCCUPATION SOC 4 – 9 ONLY			
Clerical/Secretarial	23.9	5942	25
Personal service	13.5	4211	17
Selling	11.7	2389	10
Skilled/Craft Manual	22.5	5376	22
Plant/Vehicle/Machine Operatives	15	3631	15
Other Manual Jobs	12.9	2373	10
Occupation Not Given	0.3	146	1

CHAPTER 2

Basic Skill Needs

2.1 Introduction

In this volume we provide more detail on the occupations covered by the research. We begin by looking at the four basic skills together (Section 2.2) and, subsequently, at each of the four separately in turn (Sections 2.3 - 2.6). However, first we must briefly remind ourselves of some technicalities about the data on which the results are founded.

This report is based on the returns from 24,075 local employing establishments, and it will be recalled from Chapter 1 that each respondent was asked to concentrate solely on the largest group of similar jobs, below the professional/technical level, at his/her establishment. As in *'Basic Skills and Jobs'* Volume 1, we summarise according to the six major SOC groups below the professional and technical level, but we also expand the data to cover the 'minor group' level of the SOC, giving 49 separate job classifications. We present the data at this level of disaggregation mainly for reference purposes only and do not analyse it in detail. It represents, however, a detailed reference guide to the level of basic skills needed by individual jobs.

In this research we have attempted for the first time in the UK to operationalise an objective scale of performance, based on the accreditation framework developed by the Basic Skills Accreditation Initiative, to match particular jobs with a particular level of reading, writing, numeracy and oral communication skills. A full description of this process is given in *'Basic Skills and Jobs'* Volume 1.

2.2 Understanding the Results and How to Use this Directory

In order to interpret the (sometimes) rather detailed results contained in this volume, it is important to bear in mind two things; how the demand for basic skills was measured, and how these measurements are expressed in this report.

Looking first at measurement, we have attempted in this research, for the first time in the UK, to operationalise an objective scale of performance based on the accreditation framework developed by the Basic Skills Accreditation Initiative for ALBSU. This is necessary in order to help us match particular kinds of job with a particular level of reading, writing, numeracy and oral communication skills.

A full description of this process is given in *'Basic Skills and Jobs'* Volume 1, but essentially, the ALBSU framework was simplified to identify 11 component skills (three for reading, two for writing, four for numeracy and two for oral communications). These component skills are shown in the first column of boxes on the left of Table 2.1, labelled 'skill 1', 'skill 2', etc. Then, each of the communication skills was assessed at four attainment levels (the Foundation Level, Level 1, Level 2, and Level 3), while numeracy was assessed at three levels (Foundation, 1, and 2). Moving along each row of Table 2.1, these levels are exemplified by citing certain competences which would involve using the particular skill to that level. So, for example, The Foundation level of the first of the three Reading Skills (reading and understanding written text) is exemplified by the ability to use and act on a simple text (up to six sentances or one paragraph). For each of the 11 component skills, our respondents were asked to identify the highest level of that skill which their job required.

Turning now to the interpretation of the results, in *'Basic Skills and Jobs'* Volume 1, we provided estimates of the average level of basic skills required, for reading, writing, numeracy and oral communications. We observed significant variation, mainly between occupations, but also apparently within occupations. In that volume we showed that some of this intra-occupational variation was due to different establishment sizes, different industries, different public and private sector needs, etc. But some of it was clearly also due to variation within the very broad occupational categories used. These broad averages need to be broken down into their constituent parts and, in this report, we use our much finer occupational breakdown to present the demand for basic skills.

Finally, looking now at the presentation of the results, in the tables which follow in this Chapter, we list the 49 categories of job, constituting this finer sub-division. In the first column of each table, we identify each job by name and also cite the SOC reference number. In the next column we cite the average level of skill needed, and in the remaining columns we show the distribution around that average.

In using these tables, the average skill requirement is likely to be the most useful piece of information. Thus, looking for example at Table 2.2, we can see that clerks in the public sector (SOC 40) need reading skills to an average level of almost Level 2 (2.89); furthermore, the distribution around this average is not very great, with nealy half (46 per cent) requiring reading skills to Level 2.

Table 2.1: **Simplified Assessment Scheme for Reading and Writing Skills**

Reading Skill 1	*Foundation Level*	*Level 1*	*Level 2*	*Level 3*
Read and understand text in the form of letters, written instructions, manuals, notes, orders, etc.	Use and act on simple text (up to six sentences or one paragraph)	Understand and act on a written source (e.g. a letter up to one page long)	Choose and use appropriate material from more than one written source	Select and evaluate material from several written sources for a specific need

Reading Skill 2	*Foundation Level*	*Level 1*	*Level 2*	*Level 3*
Read and understand graphical material such as tables, signs, charts, labels, plans, maps, etc.	Get the main idea from a simple source (e.g. sign with a single message)	Understand and act on a graphical source up to one page long (e.g. a town map, price list, sign with multiple messages)	Select material from more than one graphical source (e.g. complex tables, plans)	Select and evaluate material from several graphical sources for a specific need

Reading Skill 3	*Foundation Level*	*Level 1*	*Level 2*	*Level 3*
Use reference systems such as filing systems, libraries, databases	Use a simple list	Consult a reference source to obtain simple information, (e.g. Yellow Pages, dictionary)	Use a reference system to obtain specific information (e.g. find a book in a library or a file in a filing system)	Select and use appropriate reference systems for a purpose (e.g. research an issue)

Writing Skill 1	*Foundation Level*	*Level 1*	*Level 2*	*Level 3*
Write accurate letters, notes, reports or messages	Write short simple notes or letters conveying up to two separate ideas	Write reports, letters or notes conveying up to four separate ideas	Write material in a specialised format (e.g. specifications, contracts, formal letters)	Written material in a variety of appropriate styles and formats according to need

Writing Skill 2	*Foundation Level*	*Level 1*	*Level 2*	*Level 3*
Complete forms or other pre-formatted documents	Fill in a basic form (e.g. write an order form, booking slip, receipt)	Complete a simple form (e.g. application form, timesheet, claim form)	Complete an open-ended form (e.g. accident report form, telephone message form)	Complete forms in a variety of appropriate styles and formats as required

Table 2.1: **Simplified Assessment Scheme for Numeracy and Oral Communication Skills**

Numeracy Skill 1	*Foundation Level*	*Level 1*	*Level 2*
Handle cash or other financial transactions accurately, using till, calculator or ready reckoner as necessary	Transactions of up to seven similar items at a time, give change if necessary	Transactions of up to 20 items at a time, give change and calculate simple discounts	Transactions of any number of items at a time, and calculate complex discounts, OR use foreign currency

Numeracy Skill 2	*Foundation Level*	*Level 1*	*Level 2*
Keep records in numerical or graphical form	Record simple numerical information (e.g. count small batches)	Find the appropriate information and make a simple record based on it (e.g. simple stock-taking)	Find the appropriate information from several complex sources, make a record based on it (e.g. stock-taking and sales audit)

Numeracy Skill 3	*Foundation Level*	*Level 1*	*Level 2*
Make and monitor schedules or budgets in order to plan the use of time or money	Plan and monitor small amounts of time and money (up to 7 days or £250)	Plan and monitor amounts of time, money or expenditure (up to 4 weeks or £2,000)	Plan and monitor large amounts of time, money or spending (over 4 weeks or up to £20,000)

Numeracy Skill 4	*Foundation Level*	*Level 1*	*Level 2*
Calculate lengths, areas, weights or volumes accurately using appropriate tools, e.g. rulers, calculators, etc.	Simple calculations on familiar items in either metric or imperial units	Calculations on items of unfamiliar or irregular shape in either metric or imperial units	Calculations on items of complex or composite shape, use scale drawings, convert between metric and imperial units

Oral Comm. Skill 1	*Foundation Level*	*Level 1*	*Level 2*	*Level 3*
Give information to other people on the telephone or face to face	Give information on a single topic to one familiar person	Give information on several topics to unfamiliar people	Explain or describe things to people in order to help them	Prepare and make a formal presentation to a group of people

Oral Comm. Skill 2	*Foundation Level*	*Level 1*	*Level 2*	*Level 3*
Getting information from other people on the telephone or face to face	Getting information on a single topic from one familiar person	Getting information on several topics from unfamiliar people	Find, select and use appropriate information from several people to solve a problem	Find, select and use complex information from several people to solve a problem or support a case

2.3 Occupational Variation in Basic Skills Needed

We know from *'Basic Skills and Jobs'* Volume 1 that the level of basic skills generally increases as we move up the social spectrum. Clerical/Secretarial Jobs and (to a lesser extent) Selling Jobs have a higher than average requirement for all the basic skills and, conversely, the three manual categories tend to have below average requirements.

In this Directory we consider reading, writing, numeracy and oral communication skills in turn. Within each of the four sections we will show the distribution of demand for the skill broken down by occupation and by the various component skills which make up each of the four skills.

Each 'generic' skill (ie reading, writing, etc.) is a simple average of their component skills, calculated by attributing a weight to each of the five categories used in the questionnaire. An average score, allowing for partial non-response was estimated, and attributed as follows:

- 0 Not Needed
- 0.1-0.5 Partial Need
- 0.6-1.5 Foundation Level
- 1.6-2.5 Level 1
- 2.6-3.5 Level 2
- 3.6-4.0 Level 3.

2.3.1 Reading Skills at Work

As in *'Basic Skills and Jobs'* Volume 1 the categorisations of the ALBSU Standards for reading were simplified into three component skills, as follows:

- Reading Skill 1 : 'Read and understand text in the form of letters, written instructions, manuals, notes, orders, etc.'
- Reading Skill 2 : 'Read and understand graphical material such as tables, signs, charts, labels, plans, maps, etc.' and
- Reading Skill 3 : 'Use reference systems such as filing systems, libraries, databases, etc.'.

In Chart 2.1 we present the results for reading at the generic skill level. In the top row of the chart is shown the proportions of our respondents requiring reading to each of the six levels assessed, and below this we present the six broad occupational groups used throughout. It shows that:

- fewer than one in ten jobs can be undertaken without reading skills, although in another six per cent the level of reading skill required falls below the Foundation Level
- demand for reading is fairly evenly spread between Foundation Level, Level 1 and Level 2
- thirteen per cent of jobs require reading skills to the highest level, Level 3
- much of the demand for the higher levels of reading is restricted to Clerical/Secretarial Jobs, and to a lesser extent, Selling Jobs, while it is among the less skilled manual occupations that we observe the greater number of jobs requiring only minimal reading skills.

These occupational variations are explored in greater detail in Table 2.2, where we present the same data, but broken down into our fine occupational groups. We do not propose to comment on them here. Their presentation at this level of detail is largely for reference purposes, and readers should refer to section 2.2 for guidance in making their own interpretation. However, the results are generally consistent with the analysis proposed above and in *'Basic Skills and Jobs'* Volume 1. The occupations are presented in the order in which they appear in the Standard Occupational Classification. The table also shows the number of establishments reporting on each of the 49 occupations, and readers will observe that only eight cases are based on less than 100 observations.

Having considered reading at the generic level, we now turn to examining each of the component reading skills.

Reading Skill 1: Reading and Understanding Text

The first component skill for reading is the ability to read and understand text in the form of letters, written instructions, manuals, notes, orders, etc. The ability to read textual material is both the most widely required component skill, and the one most likely to be sought at the higher levels. As Chart 2.2 shows:

- only one in ten jobs (11%) do not require the ability to read and understand text, and nearly half require this skill at Level 2 and 3, and
- the non-manual occupations generally have higher requirements of the skill, although Skilled/Craft Manual Jobs are more likely to need to read text at the highest levels than Personal Service Jobs.

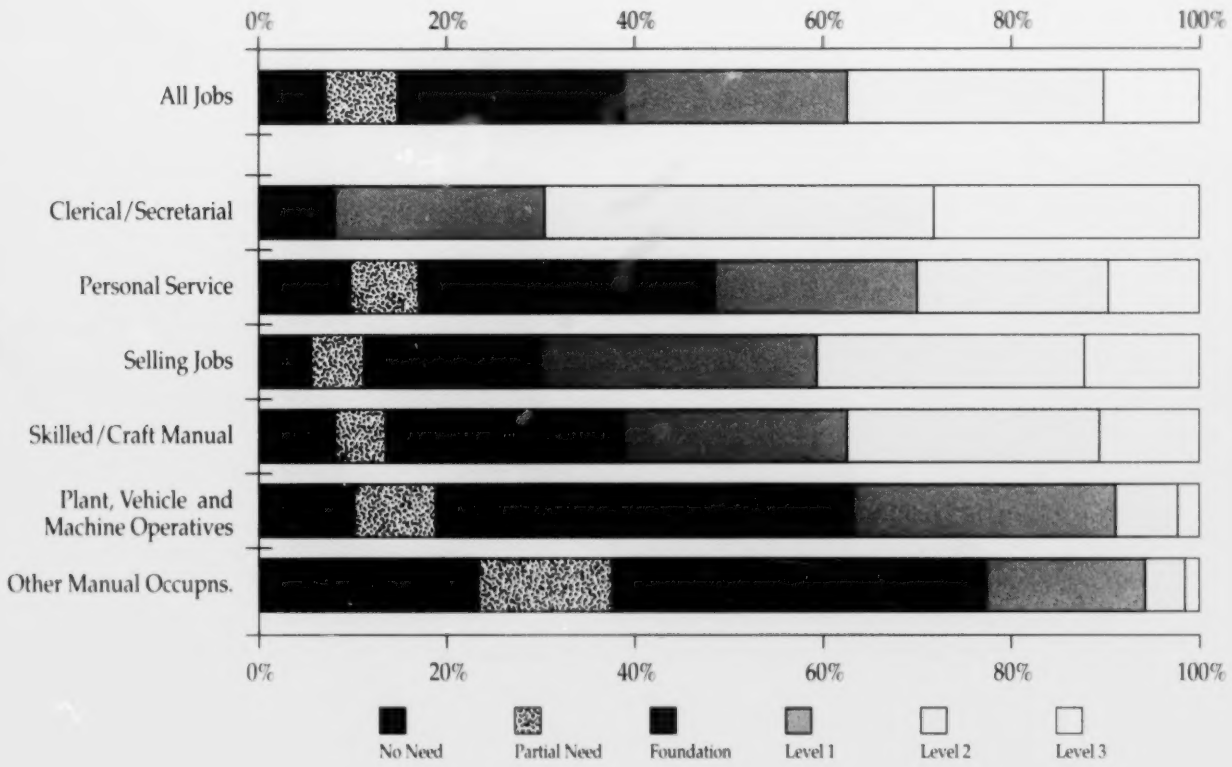
In Table 2.3 we present the data broken down into our fine occupational groups. Again, we do not comment on them here, and reference should be made to section 2.2 for guidance in their interpretation.

Reading Skill 2: Reading Graphical Material

The second component skill for reading is the ability to read and understand graphical material in the form of tables, signs, labels, plans, maps, etc. The ability to read graphical material is less widely sought than the ability to read textual material. As Chart 2.3 shows:

- one fifth of all jobs do not require this ability, while almost one third require the two highest levels, and
- Skilled/Craft Manual Jobs are most likely to require some level of reading graphical material, and are also most

Chart 2.1: **Reading Skills Required: By Occupation. England and Wales**



likely to need it at the highest levels, with just under half requiring Level 2 or 3. The non-manual occupations, and in particular Clerical/Secretarial Jobs, are more likely to require the ability at the higher levels than the less skilled manual jobs.

Table 2.4 shows the same data broken down into our fine occupational groups. Readers should refer to section 2.2 for guidance in interpreting the results at this level of detail.

Reading Skill 3: Using Reference Systems

The third component skill for reading is the ability to use reference systems such as filing systems, libraries, databases, etc. This ability is the least widely sought reading skill, although it is more likely to be required at the highest levels than reading graphical material. As Chart 2.4 shows:

- over one third of jobs do not need to use reference systems, although around two fifths need this skill at Level 2 and 3, and
- this bi-polar distribution is explained by there being rather more inter-occupational variation in the need for using reference systems than is the case for the other two reading skills. Almost nine out of ten Clerical/Secretarial Jobs require the ability at Level 2 or 3, while at the other end of the scale over two thirds of Other Manual Jobs do not need the skill.

Table 2.5 presents the same data broken down into our fine occupational groups. We do not comment on them here, and their presentation at this level of detail is for reference purposes.

2.3.2 Writing Skills at Work

The ALBSU Standards for writing were collapsed into two component skills, as follows:

- Writing Skill 1 : 'Write accurate letters, notes, reports or messages', and
- Writing Skill 2 : 'Complete forms or other pre-formatted documents'.

In Chart 2.5 we present the results for writing at the most aggregated level. It shows that:

- just over one in ten jobs can be done without writing skills, and a further 7 per cent of jobs require them below the Foundation Level. Comparing chart 2.5 with chart 2.4 we can see that writing skills are less widely sought than reading skills
- demand for writing skills is concentrated at Foundation Level and Level 1, with over half of all jobs requiring these levels

Table 2.2: **Distribution of Basic Skill Requirements for Reading. By SOC Minor Occupational Groups**

Reading Skills	Average Reading Skill Needed	Reading: Skill level required by % of employers shown:						N =
		Not Needed at all	Partial Need	Foundation Level	Level 1	Level 2	Level 3	
	%	%	%	%	%	%	%	
All Jobs	1.97	7	6	26	25	23	13	23300
Occupations (at SOC 2 Digit Level)								
Pub. Sec. Clericals 40	2.89	0	0	2	27	46	25	283
Numerical Clerks 41	2.83	1	1	7	24	37	30	871
Filing Clerks 42	2.99	1	1	4	18	43	32	428
Other Clerks 43	2.87	1	0	4	26	45	24	2129
Stores Clerks 44	1.55	5	10	40	28	12	6	431
Secretaries/WP 45	2.90	1	0	3	23	49	24	1340
Receptionists etc. 46	2.53	2	1	10	35	37	16	524
Other Clerical/Sec 49	2.89	3	3	10	16	29	40	180
Construction Trades 50	1.91	7	4	33	23	15	18	430
Machining Trades 51	2.23	3	2	23	29	27	16	657
Electrical/Electronic Trades 52	2.76	1	2	10	21	39	27	507
Metal Forming Trades 53	1.80	6	4	30	36	20	5	490
Vehicle Trades 54	2.43	2	2	17	26	36	17	603
Textile Trades 55	.79	24	19	44	9	3	2	359
Printing Trades 56	2.14	3	5	25	27	25	16	319
Woodworking Trades 57	1.77	7	4	30	35	19	5	269
Food Prep Trades 58	.91	31	7	41	13	7	0	54
Other Trades 59	1.88	13	5	27	21	16	18	401
NCOs etc. 60	3.08	0	0	0	0	100	0	4
Security Occupations 61	1.82	2	6	34	35	18	6	124
Catering Occupations 62	1.03	20	14	40	18	7	1	881
Travel Rel. Occupations 63	1.92	0	12	41	12	24	12	17
Health Occupations 64	1.95	5	5	29	28	20	12	1856
Childcare Occupations 65	2.38	7	3	19	15	33	23	422
Hairdressing etc. 66	1.46	22	4	27	27	15	5	169
Domestic Staff 67	1.03	21	11	47	15	3	3	144
Other Personal Services 69	2.16	8	4	24	21	20	22	608
Buyer etc. 70	3.42	0	0	0	8	42	50	24
Sales Reps 71	2.96	1	2	6	18	38	35	470
Sales Assistants 72	1.85	6	6	26	33	22	7	1743
Salespersons 73	1.62	0	11	34	35	16	3	79
Other Sales Occupations 79	2.36	3	5	13	29	35	15	112
FDT Operatives 80	1.08	19	9	44	21	6	1	334
Textiles Ops 81	.82	27	18	37	12	5	1	198
Chemicals etc. Ops 82	1.46	9	9	39	24	15	4	470
Metal Making Ops 83	1.17	7	9	55	19	9	0	109
Metal Working Ops 84	1.69	9	7	33	25	17	8	315
Assemblers 85	1.41	8	10	42	24	13	3	468
Other Process Ops 86	1.12	16	15	39	22	6	2	543
Road Transport Ops 87	1.42	4	4	53	30	8	1	941
Other Transport Ops 88	1.44	9	10	42	22	14	4	334
Other Operatives 89	1.34	9	11	42	24	10	3	670
Others Agric. 90	1.27	24	3	37	21	11	4	214
Others Manuf. 91	1.14	15	11	45	21	6	2	275
Others Construction 92	1.50	12	4	39	29	13	3	152
Others Transport 93	1.09	12	12	49	19	7	0	67
Others Comms. 94	1.49	7	8	31	45	5	4	84
Others Sales etc. 95	.91	23	14	44	14	4	1	943
All Others 99	1.22	18	10	39	19	9	4	255

Chart 2.2: **Requirements for Reading Skill 1: 'Read and understand text in the form of letters, written instructions, manuals, notes, orders, etc.' By Occupation. England and Wales**

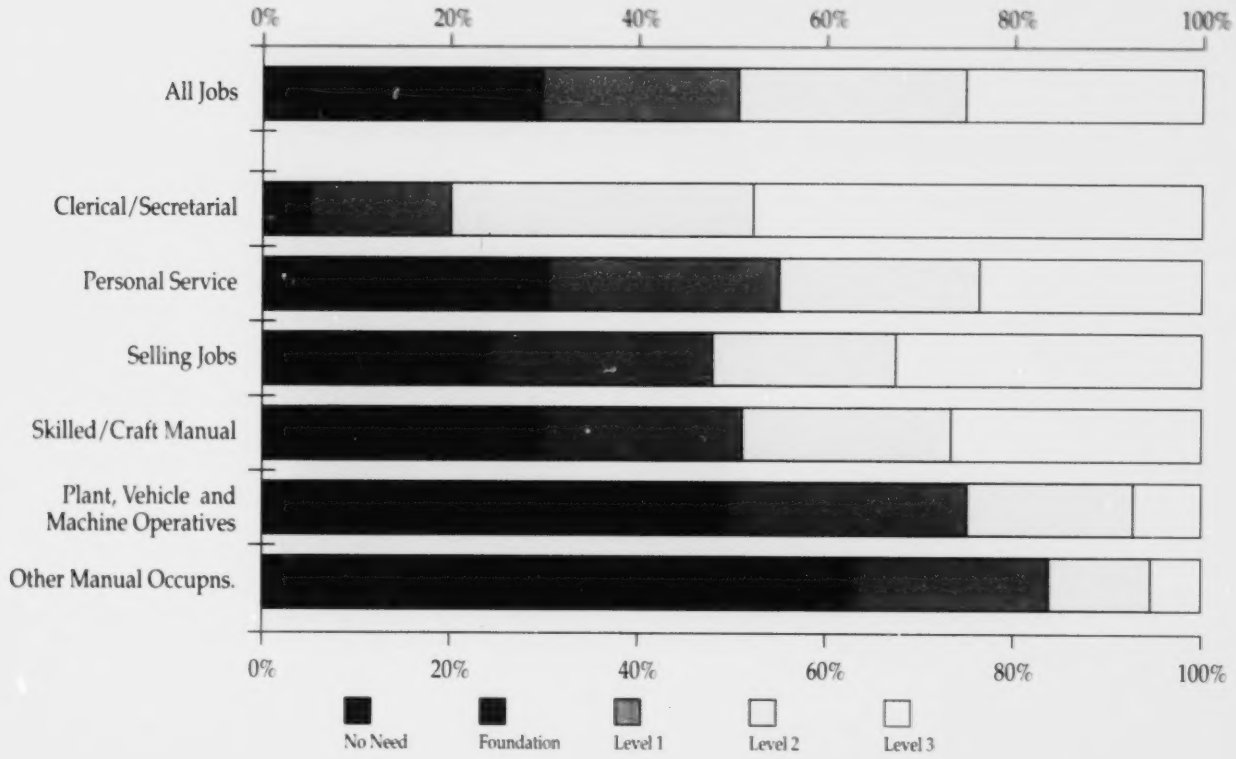


Chart 2.3: **Requirements for Reading Skill 2: 'Read and understand graphical material in the form of tables, signs, labels, plans, maps, etc.' By Occupation. England and Wales**

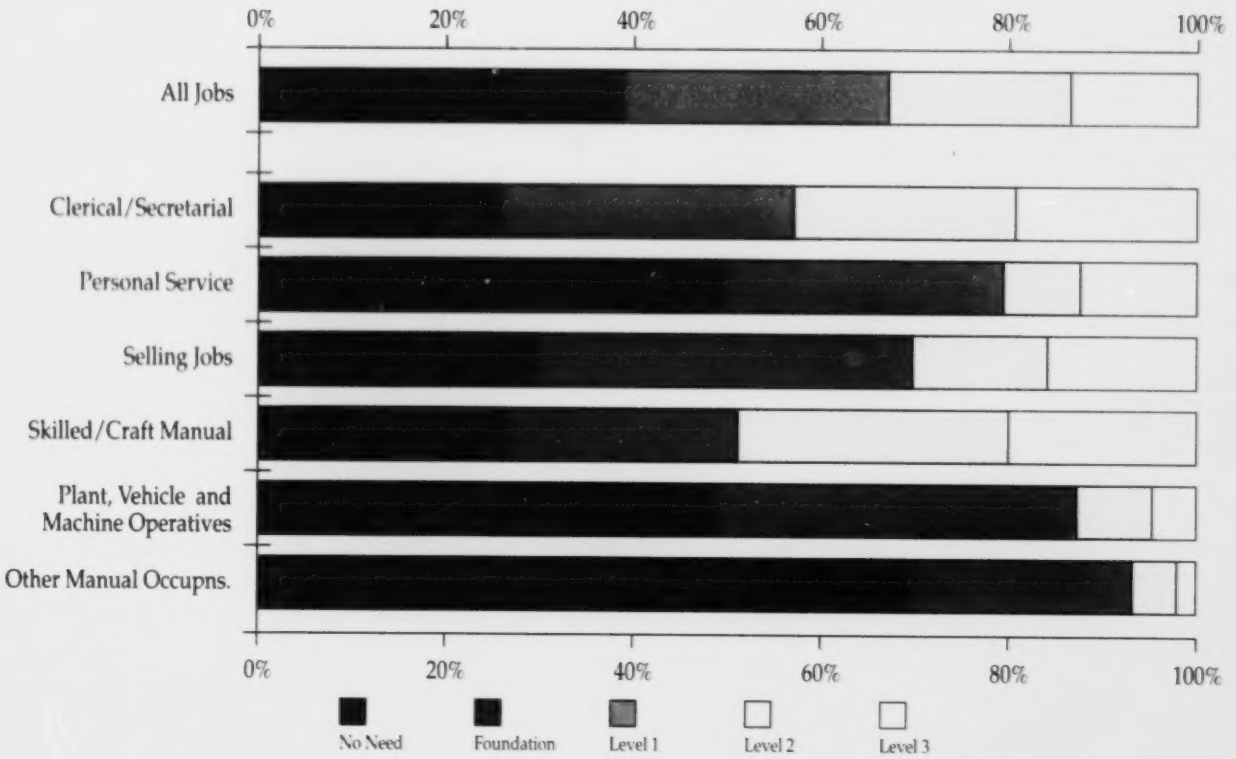


Table 2.3: **Distribution of Basic Skill Requirements for Reading Skill 1: 'Read and understand text in the form of letters, written instructions, manuals, notes, orders, etc.' By SOC Minor Occupational Groups**

Reading Skill 1 Reading Textual Material Skill Level required by % of Employers shown	Average Skill Need	Skill Not Needed	Foundation Level	Level 1	Level 2	Level 3	N =
		%	%	%	%	%	
All Jobs	2.32	11	19	21	22	25	23169
Occupations (at SOC 2 Digit Level)							
Pub. Sec. Clericals 40	3.27	0	2	14	38	46	283
Numerical Clerks 41	3.22	1	5	17	26	51	868
Filing Clerks 42	3.28	2	5	13	25	55	424
Other Clerks 43	3.17	1	2	19	34	44	2121
Stores Clerks 44	1.93	9	37	21	18	15	431
Secretaries/WP 45	3.22	1	2	16	37	44	1338
Receptionists etc. 46	2.96	4	8	18	27	42	520
Other Clerical/Sec 49	3.27	4	4	14	17	61	180
Construction Trades 50	2.21	16	19	21	15	28	429
Machining Trades 51	2.46	5	21	22	26	26	652
Electrical/Electronic Trades 52	3.02	4	7	16	30	42	504
Metal Forming Trades 53	2.06	15	23	18	25	17	481
Vehicle Trades 54	2.75	3	14	19	31	32	601
Textile Trades 55	1.11	33	39	15	8	4	378
Printing Trades 56	2.43	5	22	23	23	26	317
Woodworking Trades 57	2.09	16	19	26	19	20	266
Food Prep Trades 58	1.32	32	23	23	9	7	53
Other Trades 59	2.20	17	16	23	15	28	398
NCOs etc. 60	3.75	0	0	0	25	75	4
Security Occupations 61	2.40	3	16	35	28	17	123
Catering Occupations 62	1.45	26	29	21	15	6	872
Travel Rel. Occupations 63	2.35	0	24	35	24	18	17
Health Occupations 64	2.39	7	18	28	22	24	1841
Childcare Occupations 65	2.78	8	10	17	22	41	422
Hairdressing etc. 66	1.77	25	18	17	23	11	164
Domestic Staff 67	1.41	26	27	32	7	7	144
Other Personal Services 69	2.59	9	12	24	18	36	606
Buyer etc. 70	3.71	0	0	8	13	79	24
Sales Reps 71	3.27	2	5	12	25	55	470
Sales Assistants 72	2.20	10	20	27	23	18	1733
Salespersons 73	2.26	0	32	33	11	23	78
Other Sales Occupations 79	2.82	7	12	13	26	40	110
FDT Operatives 80	1.41	22	36	25	13	4	333
Textiles Ops 81	1.17	34	35	27	10	5	197
Chemicals etc. Ops 82	1.85	13	35	23	21	11	469
Metal Making Ops 83	1.66	9	45	24	13	8	108
Metal Working Ops 84	1.95	14	27	22	19	16	310
Assemblers 85	1.72	15	35	22	19	9	467
Other Process Ops 86	1.46	22	35	21	14	6	538
Road Transport Ops 87	1.76	12	34	30	15	9	934
Other Transport Ops 88	1.74	16	31	25	18	10	331
Other Operatives 89	1.70	14	36	24	16	9	669
Others Agric. 90	1.64	27	20	22	13	14	213
Others Manuf. 91	1.44	21	38	23	13	5	275
Others Construction 92	1.81	18	22	32	17	11	152
Others Transport 93	1.45	18	41	24	11	6	66
Others Comms. 94	1.89	7	39	23	17	13	83
Others Sales etc. 95	1.32	28	32	23	10	6	940
All Others 99	1.48	25	32	19	14	9	252

Chart 2.4: **Requirements for Reading Skill 3: 'Use reference systems, such as filing systems, libraries, databases, etc.' By Occupation. England and Wales**

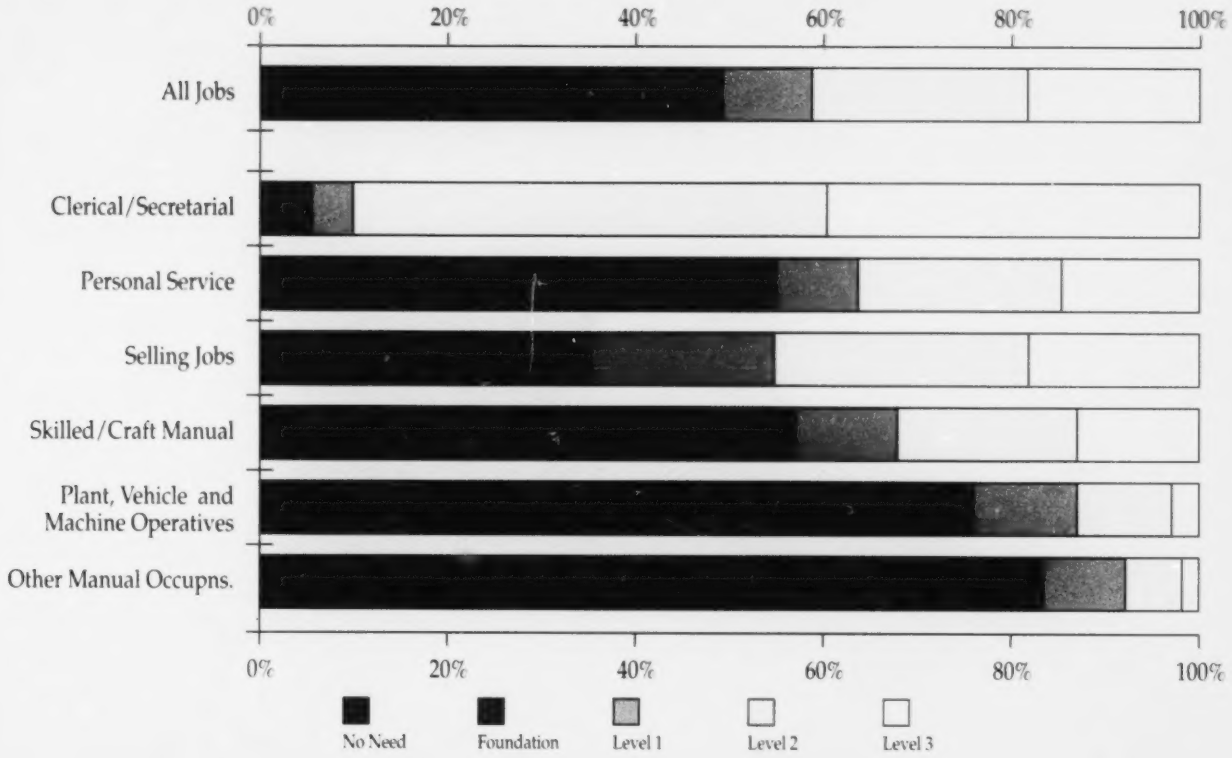


Chart 2.5: **Writing Skills Required. By Occupation. England and Wales**

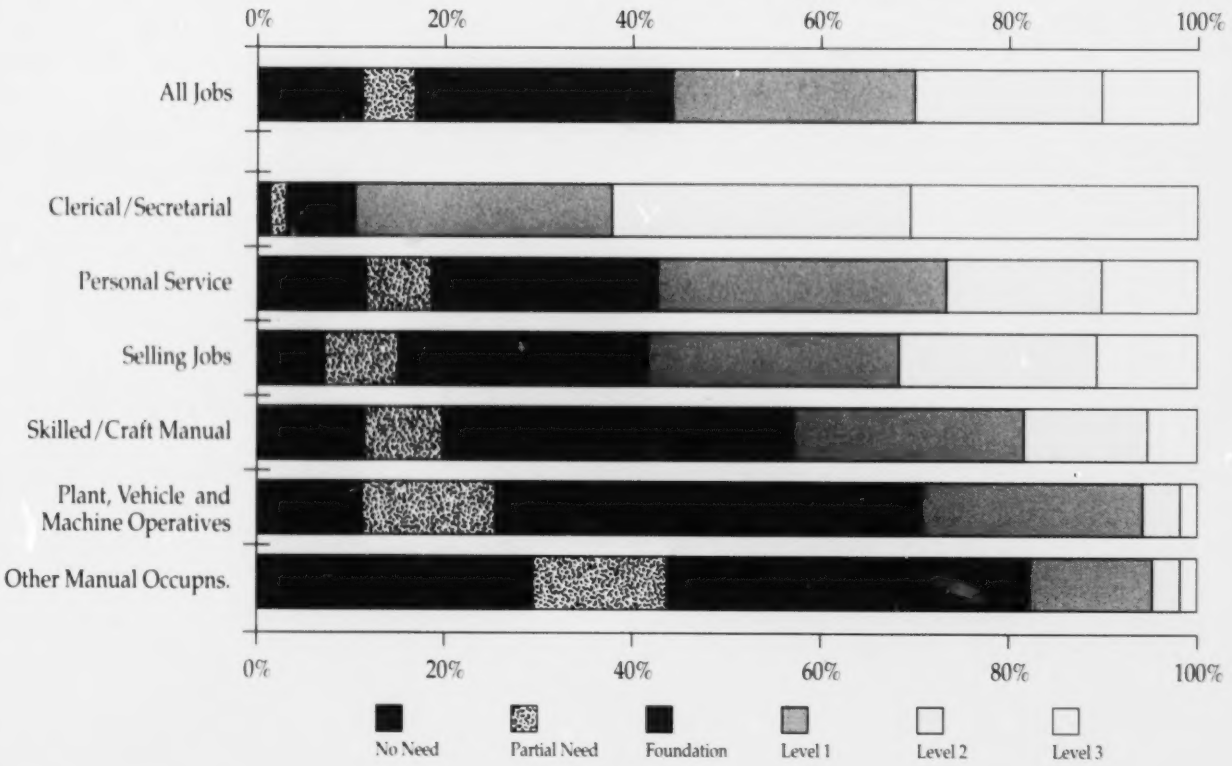


Table 2.4: **Distribution of Basic Skill Requirements for Reading Skill 2: 'Read and understand graphical material in the form of tables, signs, labels, plans, maps, etc.' By SOC Minor Occupational Groups**

Reading Skill 2 Reading Graphical Material Skill Level required by % of Employers shown	Average Skill Need	Skill Not Needed	Foundation Level	Level 1	Level 2	Level 3	N =
		%	%	%	%	%	
All Jobs	1.83	21	16	29	16	13	22832
Occupations (at SOC 2 Digit Level)							
Pub. Sec. Clericals 40	2.12	17	10	33	23	17	277
Numerical Clerks 41	2.12	22	11	22	21	23	861
Filing Clerks 42	2.45	12	4	35	22	25	419
Other Clerks 43	2.19	18	7	32	24	18	2093
Stores Clerks 44	1.39	27	28	30	8	6	423
Secretaries/WP 45	2.21	17	7	32	26	18	1318
Receptionists etc. 46	1.75	24	13	37	14	11	514
Other Clerical/Sec 49	2.46	21	4	16	23	34	177
Construction Trades 50	2.40	12	14	22	25	26	424
Machining Trades 51	2.59	8	10	22	33	26	650
Electrical/Electronic Trades 52	2.94	4	6	16	38	35	500
Metal Forming Trades 53	2.40	11	10	22	40	16	485
Vehicle Trades 54	2.44	10	10	27	27	23	585
Textile Trades 55	.86	45	33	11	4	4	346
Printing Trades 56	2.11	16	18	26	16	23	311
Woodworking Trades 57	2.38	10	13	22	34	18	263
Food Prep Trades 58	1.00	46	16	25	5	4	54
Other Trades 59	1.99	21	14	26	17	20	391
NCOs etc. 60	3.25	0	0	25	25	50	4
Security Occupations 61	1.82	17	16	43	14	9	120
Catering Occupations 62	.99	43	21	25	5	2	846
Travel Rel. Occupations 63	2.06	18	12	29	29	12	17
Health Occupations 64	1.68	21	26	29	10	13	1808
Childcare Occupations 65	2.03	20	13	29	14	21	417
Hairdressing etc. 66	1.10	41	17	23	5	6	154
Domestic Staff 67	1.02	40	29	23	4	3	143
Other Personal Services 69	1.95	21	16	28	14	19	600
Buyer etc. 70	2.88	8	0	25	29	38	24
Sales Reps 71	2.71	10	3	26	25	34	464
Sales Assistants 72	1.62	21	19	40	11	6	1706
Salespersons 73	1.57	19	22	43	10	4	76
Other Sales Occupations 79	1.73	34	4	29	14	16	109
FDT Operatives 80	1.15	30	35	24	7	2	330
Textiles Ops 81	.80	51	24	17	2	4	192
Chemicals etc. Ops 82	1.56	21	28	28	15	6	459
Metal Making Ops 83	1.35	24	35	24	12	4	108
Metal Working Ops 84	2.00	18	20	21	24	16	310
Assemblers 85	1.62	23	23	29	17	7	459
Other Process Ops 86	1.19	31	32	25	7	3	534
Road Transport Ops 87	1.84	11	11	64	8	5	928
Other Transport Ops 88	1.69	19	25	29	18	8	327
Other Operatives 89	1.50	23	26	31	11	6	656
Others Agric. 90	1.39	29	21	26	14	4	209
Others Manuf. 91	1.34	28	30	28	7	7	273
Others Construction 92	1.99	17	13	32	27	10	148
Others Transport 93	1.25	30	27	34	8	2	64
Others Comms. 94	1.42	25	21	43	5	5	83
Others Sales etc. 95	.89	44	28	22	3	2	922
All Others 99	1.41	30	23	26	15	5	251

Table 2.5: **Distribution of Basic Skill Requirements for Reading Skill 3: 'Use reference systems such as filing systems, libraries, databases, etc.' By SOC Minor Occupational Groups**

Reading Skill 3 Using Reference Systems Skill Level required by % of Employers shown	Average Skill Need	Skill Not Needed	Foundation Level	Level 1	Level 2	Level 3	N =
		%	%	%	%	%	
All Jobs	1.75	35	10	10	25	16	22789
Occupations (at SOC 2 Digit Level)							
Pub. Sec. Clericals 40	3.26	2	2	4	52	40	282
Numerical Clerks 41	3.15	5	3	6	42	43	865
Filing Clerks 42	3.23	4	3	3	45	43	425
Other Clerks 43	3.22	2	2	6	51	39	2114
Stores Clerks 44	1.28	40	23	11	18	7	422
Secretaries/WP 45	3.27	1	2	4	53	39	1329
Receptionists etc. 46	2.86	6	5	11	51	26	522
Other Clerical/Sec 49	2.92	11	8	7	28	46	178
Construction Trades 50	1.15	59	5	7	11	14	416
Machining Trades 51	1.62	37	14	11	25	13	643
Electrical/Electronic Trades 52	2.31	22	9	9	33	25	492
Metal Forming Trades 53	.90	57	12	11	14	2	469
Vehicle Trades 54	2.12	26	7	11	38	16	591
Textile Trades 55	.35	78	11	3	3	2	347
Printing Trades 56	1.83	29	14	11	32	12	310
Woodworking Trades 57	.72	63	12	10	8	3	256
Food Prep Trades 58	.38	75	5	7	5	0	53
Other Trades 59	1.47	45	9	12	14	17	388
NCOs etc. 60	2.25	25	0	0	75	0	4
Security Occupations 61	1.19	48	12	14	17	6	118
Catering Occupations 62	.60	67	12	9	8	2	846
Travel Rel. Occupations 63	1.35	53	6	6	24	12	17
Health Occupations 64	1.76	31	13	14	25	13	1808
Childcare Occupations 65	2.29	24	8	9	31	27	420
Hairdressing etc. 66	1.34	40	16	10	20	7	154
Domestic Staff 67	.65	67	13	11	5	4	141
Other Personal Services 69	1.94	35	7	10	21	25	605
Buyer etc. 70	3.67	0	0	0	33	67	24
Sales Reps 71	2.93	8	4	13	36	37	463
Sales Assistants 72	1.72	30	13	20	27	8	1710
Salespersons 73	1.04	48	16	21	12	3	76
Other Sales Occupations 79	2.50	15	6	12	45	20	112
FDT Operatives 80	.67	61	21	6	9	2	330
Textiles Ops 81	.43	71	15	6	4	1	189
Chemicals etc. Ops 82	.92	54	16	10	14	3	453
Metal Making Ops 83	.53	72	12	5	9	1	108
Metal Working Ops 84	1.10	51	15	9	17	6	303
Assemblers 85	.84	56	18	11	10	3	451
Other Process Ops 86	.70	62	18	9	8	2	532
Road Transport Ops 87	.62	66	12	14	5	1	910
Other Transport Ops 88	.84	58	14	12	11	3	326
Other Operatives 89	.80	59	15	10	11	3	654
Others Agric. 90	.75	63	9	7	12	3	205
Others Manuf. 91	.60	67	17	7	7	2	270
Others Construction 92	.64	68	8	14	7	1	145
Others Transport 93	.39	75	14	8	3	0	64
Others Comms. 94	1.18	43	11	32	7	5	82
Others Sales etc. 95	.48	72	11	8	6	1	917
All Others 99	.78	62	12	11	10	3	250

- less than one in eight jobs require writing skills at Level 3, and

- a similar occupational pattern of demand for reading skills is observed, although demand for writing skills at the highest levels is relatively more concentrated among Clerical/Secretarial Jobs, and even greater proportions of less skilled manual occupations require no, or minimal, writing skills.

Table 2.6 presents the same data, but broken down into our 49 fine occupational groups, as discussed in section 2.2.

Writing Skill 1: Writing Accurate Letters, Notes, Reports or Messages

The first component skill for writing is the ability to write accurate letters, notes, reports or messages. The ability to write accurately is the less widely sought writing skill. As Chart 2.6 shows:

- a quarter of all jobs do not need to write accurately, and those that do generally require Foundation Level or Level 1, and

- there is a clear hierarchy of demand for the ability to write letters and reports, with Clerical/Secretarial Jobs the most likely to require the skill and Other Manual Jobs the least likely; this pattern is also evident at the high levels of the skill.

In Table 2.7 we again present the same data broken down into our 49 occupational groups.

Writing Skill 2: Completing Forms or Other Pre-Formatted Documents

The second component skill for writing is the ability to complete forms or other pre-formatted documents. Form filling skills are both more widely needed, and to higher levels, than letter writing skills (writing skill 1). Around half as many jobs do not need form filling skills and twice as many need them at the highest level than is the case with writing skills per se. As Chart 2.7 shows:

- over a quarter of all jobs need to complete forms at Level 3, while only 14 per cent do not require the skill, and

- occupational differences in demand for form filling skills are rather more pronounced than for letter writing skills. Two thirds of Clerical/Secretarial Jobs, and one third of Selling Jobs, require Level 3. Skilled and Semi Skilled manual jobs are more likely to need form filling skills than Personal Service Jobs, although Personal Service Jobs have greater requirements at the higher levels.

We present the same data in Table 2.8 broken down into our fine occupational groups.

2.3.3 Numeracy Skills at Work

The ALBSU Standards for numeracy were assessed on a three point scale unlike the communications skills (reading, writing and oral communications). Numeracy was collapsed into four component skills, as follows:

- Numeracy Skill 1 : 'Handle cash or other financial transactions accurately, using till, calculator or ready reckoner as necessary'

- Numeracy Skill 2 : 'Keep records in numerical or graphical form'

- Numeracy Skill 3 : 'Make and monitor schedules or budgets in order to plan the use of time or money', and

- Numeracy Skill 4 : 'Calculate lengths, areas, weights or volumes accurately using appropriate tools, eg. rulers, calculators etc'.

In Chart 2.8 we present the results for numeracy at the generic level. It shows that:

- one in eight jobs do not require numeracy skills at all. Just over a quarter of jobs have minimal numeracy requirements of below Foundation Level

- where numeracy skills are needed, they are generally required at the Foundation Level

- numeracy is rarely sought at the higher skill levels. Less than one in five jobs require numeracy skills above Foundation Level, and only 3 per cent require Level 2, and

- Selling and Clerical/Secretarial Jobs are most likely to require numeracy skills, and also to require the higher skill levels. Half of all Personal Service Jobs, and around two thirds of semi and low skilled manual occupations, have no or minimal requirements of numeracy skills, and virtually none of these jobs require the highest skill level.

These occupational variations are explored in greater detail in Table 2.9, where we present the same data, but broken down into our fine occupational groups. We do not propose to comment on them here, and their presentation at this level of detail is largely for reference purposes.

Numeracy Skill 1: Handling Cash or Other Financial Transactions

The first component skill for numeracy is the ability to handle cash or other financial transactions accurately, using a till, calculator, etc. As Chart 2.9 shows:

- a third of all jobs need to handle financial transactions at Levels 1 and 2, although just under half do not require the skill, and

Table 2.6: **Distribution of Basic Skill Requirements for Writing. By SOC Minor Occupational Groups**

Writing Skills	Average Writing Score	Writing: Skill level required by % of employers shown:						N =
		Not Needed at all	Partial Need	Foundation Level	Level 1	Level 2	Level 3	
	%	%	%	%	%	%	%	
All Jobs	1.94	11	7	29	26	16	12	23304
Occupations (at SOC 2 Digit Level)								
Pub. Sec. Clericals 40	3.01	0	0	8	27	40	25	283
Numerical Clerks 41	2.98	1	1	10	27	30	32	872
Filing Clerks 42	2.81	2	0	10	35	28	24	427
Other Clerks 43	2.99	1	1	8	28	36	27	2130
Stores Clerks 44	1.44	8	18	44	22	5	4	431
Secretaries/WP 45	3.07	1	0	6	28	34	31	1339
Receptionists etc. 46	2.62	1	2	13	39	28	16	523
Other Clerical/Sec 49	2.82	7	3	12	17	27	34	180
Construction Trades 50	1.74	17	6	34	19	13	11	430
Machining Trades 51	1.75	9	7	39	28	12	5	661
Electrical/Electronic Trades 52	2.37	3	2	22	36	25	11	507
Metal Forming Trades 53	1.28	18	8	46	23	5	1	489
Vehicle Trades 54	1.95	4	3	34	41	14	4	602
Textile Trades 55	.73	35	14	43	4	1	1	358
Printing Trades 56	1.70	6	8	43	29	9	4	318
Woodworking Trades 57	1.25	21	14	35	20	9	1	268
Food Prep Trades 58	1.00	31	9	43	9	6	2	54
Other Trades 59	1.67	19	8	30	21	13	9	399
NCOs etc. 60	2.63	0	0	0	75	0	25	4
Security Occupations 61	2.11	2	4	27	44	15	7	122
Catering Occupations 62	1.08	25	16	37	16	4	2	879
Travel Rel. Occupations 63	2.12	12	0	24	47	12	6	17
Health Occupations 64	2.21	5	5	21	39	17	13	1867
Childcare Occupations 65	2.45	7	4	18	28	19	23	423
Hairdressing etc. 66	1.16	25	14	34	19	6	2	170
Domestic Staff 67	1.07	26	14	37	18	1	3	142
Other Personal Services 69	2.27	10	4	23	24	17	22	610
Buyer etc. 70	3.27	0	4	4	13	33	46	24
Sales Reps 71	3.04	0	1	9	23	33	33	469
Sales Assistants 72	1.66	10	10	37	27	11	5	1743
Salespersons 73	1.92	4	8	34	30	16	8	79
Other Sales Occupations 79	2.31	4	6	18	35	27	11	113
FDT Operatives 80	1.02	24	18	39	17	3	0	333
Textiles Ops 81	.90	29	12	48	8	2	2	195
Chemicals etc. Ops 82	1.28	12	14	48	20	4	1	469
Metal Making Ops 83	1.04	13	16	62	6	3	0	110
Metal Working Ops 84	1.34	16	9	44	23	4	3	316
Assemblers 85	1.10	18	11	55	13	3	0	467
Other Process Ops 86	1.04	22	15	48	13	2	1	544
Road Transport Ops 87	1.67	6	7	39	40	6	2	942
Other Transport Ops 88	1.37	14	10	44	23	6	2	332
Other Operatives 89	1.25	15	12	49	18	5	2	670
Others Agric. 90	1.16	26	15	33	17	5	3	219
Others Manuf. 91	1.08	20	15	47	14	2	1	275
Others Construction 92	1.20	19	10	46	20	5	0	151
Others Transport 93	1.32	16	9	46	21	6	1	67
Others Comms. 94	1.61	11	4	44	32	7	2	84
Others Sales etc. 95	.98	30	13	39	14	3	1	942
All Others 99	1.10	28	12	36	16	5	3	255

Chart 2.6: **Requirements for Writing Skill 1: 'Write accurate letters, notes, reports or messages, etc.' By Occupation. England and Wales**

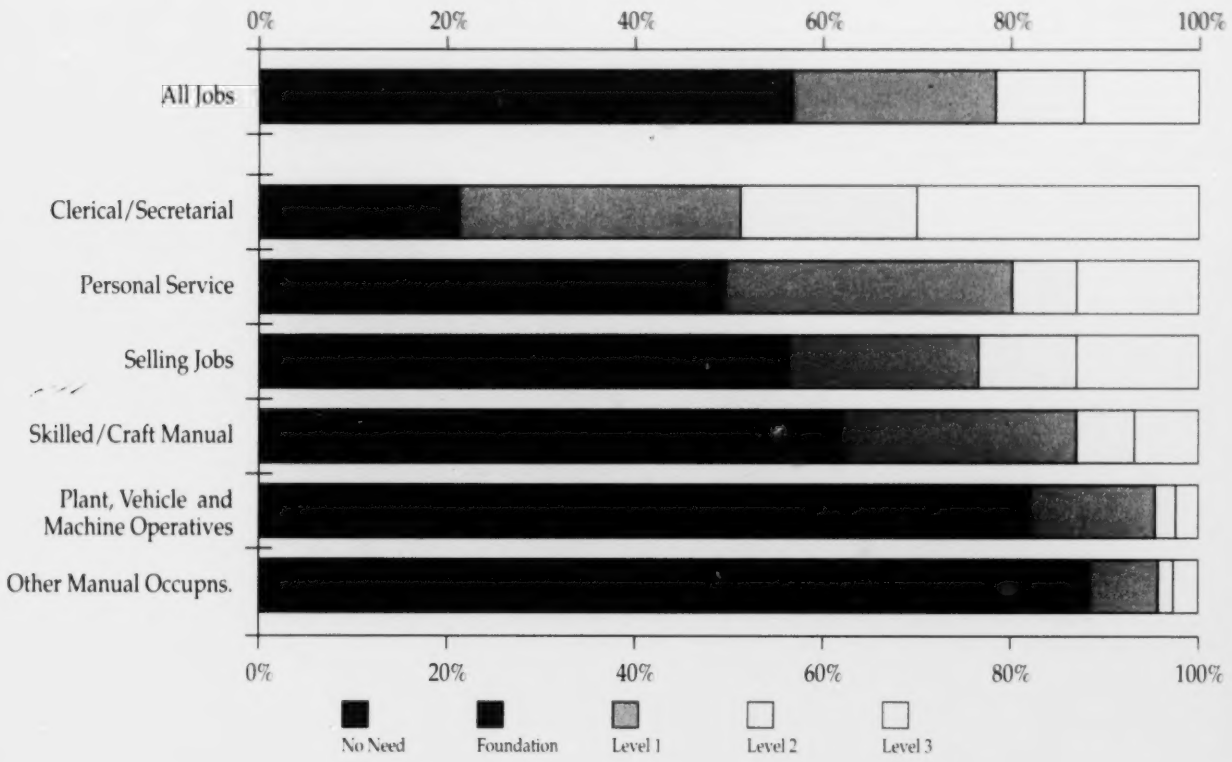


Chart 2.7: **Requirements for Writing Skill 2: 'Complete forms or other pre-formatted documents.' By Occupation. England and Wales**

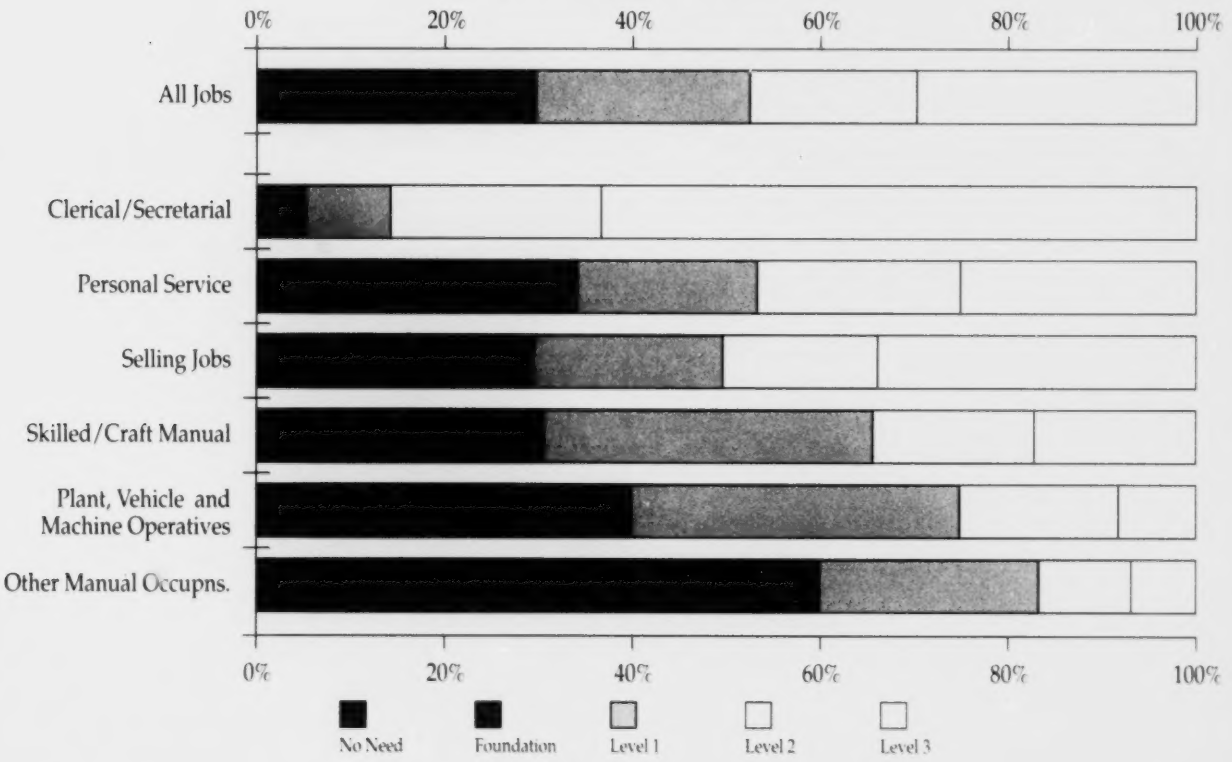


Table 2.7: **Distribution of Basic Skill Requirements for Writing Skill 1: 'Write accurate letters, notes, reports or messages, etc.' By SOC Minor Occupational Groups**

Writing Skill 1: Write accurate letters etc. Skill Level required by % of Employers shown	Average Skill Need	Skill Not Needed	Foundation Level	Level 1	Level 2	Level 3	N =
		%	%	%	%	%	
All Jobs	1.54	23	31	22	8	12	23144
Occupations (at SOC 2 Digit Level)							
Pub. Sec. Clericals 40	2.47	0	22	36	16	27	283
Numerical Clerks 41	2.51	4	21	26	14	33	870
Filing Clerks 42	2.29	6	22	35	10	25	425
Other Clerks 43	2.54	3	18	31	19	29	2127
Stores Clerks 44	.98	33	48	10	3	5	429
Secretaries/WP 45	2.66	2	17	28	19	34	1333
Receptionists etc. 46	2.10	3	34	31	11	20	523
Other Clerical/Sec 49	2.49	13	16	18	17	36	179
Construction Trades 50	1.42	31	30	15	9	13	426
Machining Trades 51	1.29	24	39	25	6	5	652
Electrical/Electronic Trades 52	1.91	12	24	35	16	12	504
Metal Forming Trades 53	.90	40	35	18	4	1	480
Vehicle Trades 54	1.51	14	36	40	5	4	597
Textile Trades 55	.36	72	23	3	1	1	357
Printing Trades 56	1.32	23	42	20	7	7	316
Woodworking Trades 57	.97	41	33	16	6	3	266
Food Prep Trades 58	.69	52	32	7	2	4	54
Other Trades 59	1.38	32	29	18	8	11	397
NCOs etc. 60	2.25	0	25	50	0	25	4
Security Occupations 61	1.76	7	30	49	3	9	121
Catering Occupations 62	.87	41	38	13	3	3	874
Travel Rel. Occupations 63	1.41	24	35	24	12	6	17
Health Occupations 64	1.94	8	29	40	8	15	1858
Childcare Occupations 65	2.14	11	22	32	8	25	420
Hairdressing etc. 66	.97	36	37	14	3	4	166
Domestic Staff 67	.69	46	42	8	1	2	141
Other Personal Services 69	1.90	21	25	20	10	23	607
Buyer etc. 70	3.08	4	4	21	21	50	24
Sales Reps 71	2.73	3	14	25	23	35	469
Sales Assistants 72	1.21	25	44	18	6	5	1728
Salespersons 73	1.48	9	57	19	8	8	79
Other Sales Occupations 79	1.93	11	33	24	16	16	113
FDT Operatives 80	.58	53	36	8	1	0	332
Textiles Ops 81	.56	59	32	3	3	2	193
Chemicals etc. Ops 82	.79	40	43	12	2	1	464
Metal Making Ops 83	.71	44	45	5	5	0	109
Metal Working Ops 84	.93	39	38	17	2	3	310
Assemblers 85	.60	52	36	9	2	0	460
Other Process Ops 86	.64	51	39	6	2	2	540
Road Transport Ops 87	1.03	27	49	19	2	3	934
Other Transport Ops 88	.90	40	37	15	2	4	326
Other Operatives 89	.84	41	39	14	3	2	662
Others Agric. 90	.86	44	32	14	2	4	217
Others Manuf. 91	.65	48	42	7	1	1	272
Others Construction 92	.85	39	40	17	3	0	151
Others Transport 93	.84	39	43	15	1	1	67
Others Comms. 94	.98	32	50	11	2	5	84
Others Sales etc. 95	.75	45	39	11	2	2	933
All Others 99	.80	46	34	12	3	3	251

Table 2.8: **Distribution of Basic Skill Requirements for Writing Skill 2: 'Complete forms and other pre-formatted documents.' By SOC Minor Occupational Groups**

Writing Skill 2 Complete Forms Accurately Skill Level required by % of Employers shown	Average Skill Need	Skill Not Needed	Foundation Level	Level 1	Level 2	Level 3	N =
		%	%	%	%	%	
All Jobs	2.33	14	14	23	18	28	23116
Occupations (at SOC 2 Digit Level)							
Pub. Sec. Clericals 40	3.56	0	2	10	16	71	282
Numerical Clerks 41	3.46	1	3	11	16	67	866
Filing Clerks 42	3.33	2	3	12	25	56	425
Other Clerks 43	3.45	2	3	8	24	63	2114
Stores Clerks 44	1.90	10	33	28	16	13	430
Secretaries/WP 45	3.49	2	2	8	22	66	1334
Receptionists etc. 46	3.14	4	8	11	26	51	520
Other Clerical/Sec 49	3.14	7	4	13	18	57	1809
Construction Trades 50	2.07	19	13	29	16	21	428
Machining Trades 51	2.19	11	13	39	19	18	656
Electrical/Electronic Trades 52	2.83	4	5	29	25	36	503
Metal Forming Trades 53	1.64	22	16	44	11	7	487
Vehicle Trades 54	2.39	6	11	38	24	19	594
Textile Trades 55	1.10	38	22	33	4	3	356
Printing Trades 56	2.08	10	17	40	16	15	314
Woodworking Trades 57	1.52	30	16	30	15	7	264
Food Prep Trades 58	1.32	34	21	23	7	9	53
Other Trades 59	1.96	22	17	24	15	20	394
NCOs etc. 60	2.67	0	0	33	67	0	3
Security Occupations 61	2.47	9	12	20	37	19	121
Catering Occupations 62	1.28	33	27	22	10	6	866
Travel Rel. Occupations 63	2.82	12	0	18	35	35	17
Health Occupations 64	2.49	13	9	19	31	27	1845
Childcare Occupations 65	2.76	10	9	15	28	38	421
Hairdressing etc. 66	1.28	33	29	13	13	7	162
Domestic Staff 67	1.44	30	22	24	15	6	140
Other Personal Services 69	2.64	12	9	18	24	36	606
Buyer etc. 70	3.46	0	8	4	21	67	24
Sales Reps 71	3.36	1	6	9	21	62	467
Sales Assistants 72	2.10	13	23	25	17	21	1730
Salespersons 73	2.38	9	25	13	23	29	78
Other Sales Occupations 79	2.67	9	12	19	23	36	112
FDT Operatives 80	1.45	27	26	30	9	8	332
Textiles Ops 81	1.23	32	25	34	4	5	195
Chemicals etc. Ops 82	1.76	14	27	35	13	9	464
Metal Making Ops 83	1.37	17	34	43	3	2	108
Metal Working Ops 84	1.74	20	17	39	15	9	313
Assemblers 85	1.58	19	24	44	7	6	465
Other Process Ops 86	1.43	24	27	36	7	6	543
Road Transport Ops 87	2.30	8	17	26	35	14	933
Other Transport Ops 88	1.81	16	20	38	16	9	332
Other Operatives 89	1.65	18	23	41	9	8	665
Others Agric. 90	1.44	31	20	24	12	8	215
Others Manuf. 91	1.50	24	24	37	9	6	273
Others Construction 92	1.55	26	17	37	17	3	150
Others Transport 93	1.82	20	20	33	14	14	66
Others Comms. 94	2.27	11	11	37	23	18	83
Others Sales etc. 95	1.20	38	23	23	10	5	933
All Others 99	1.37	32	24	27	9	8	254

Chart 2.8: **Numeracy Skill Requirements: By Occupation. England and Wales**

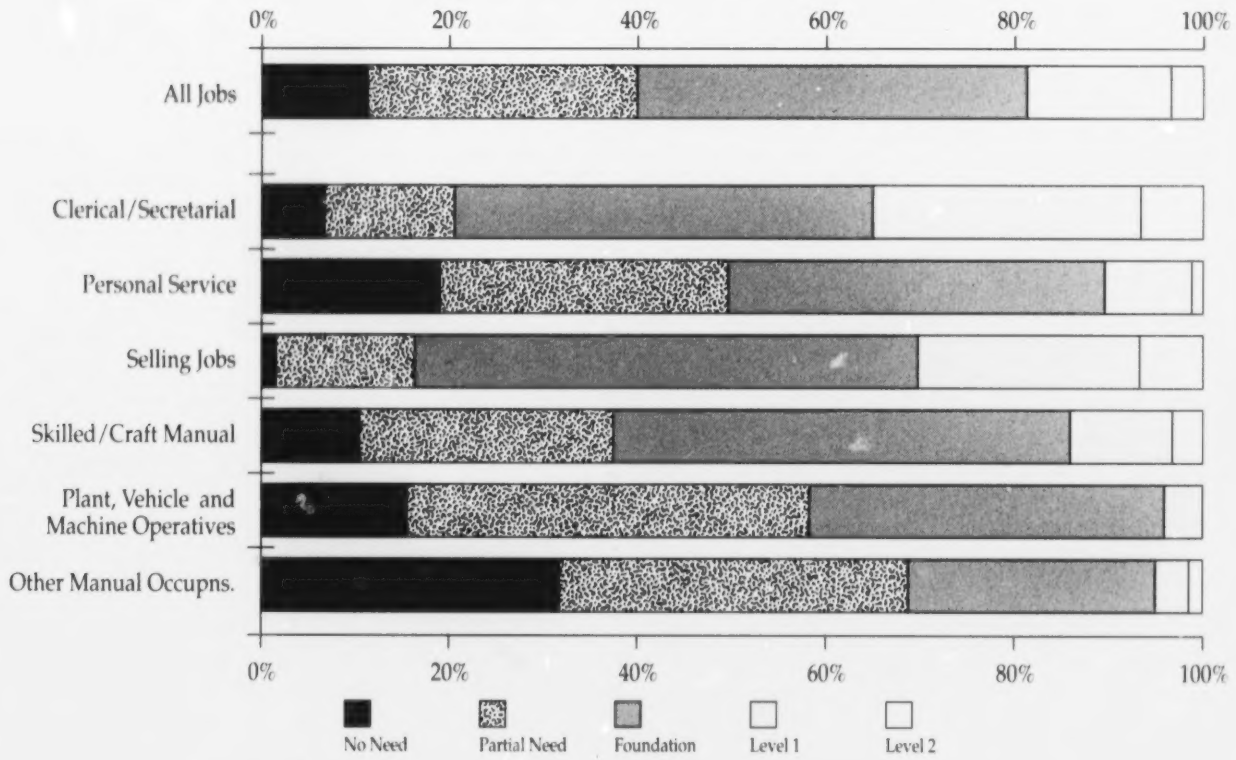


Chart 2.9: **Requirements for Numeracy Skill 1: 'Handle cash or other financial transactions accurately, using till, calculator, etc.' By Occupation. England and Wales**

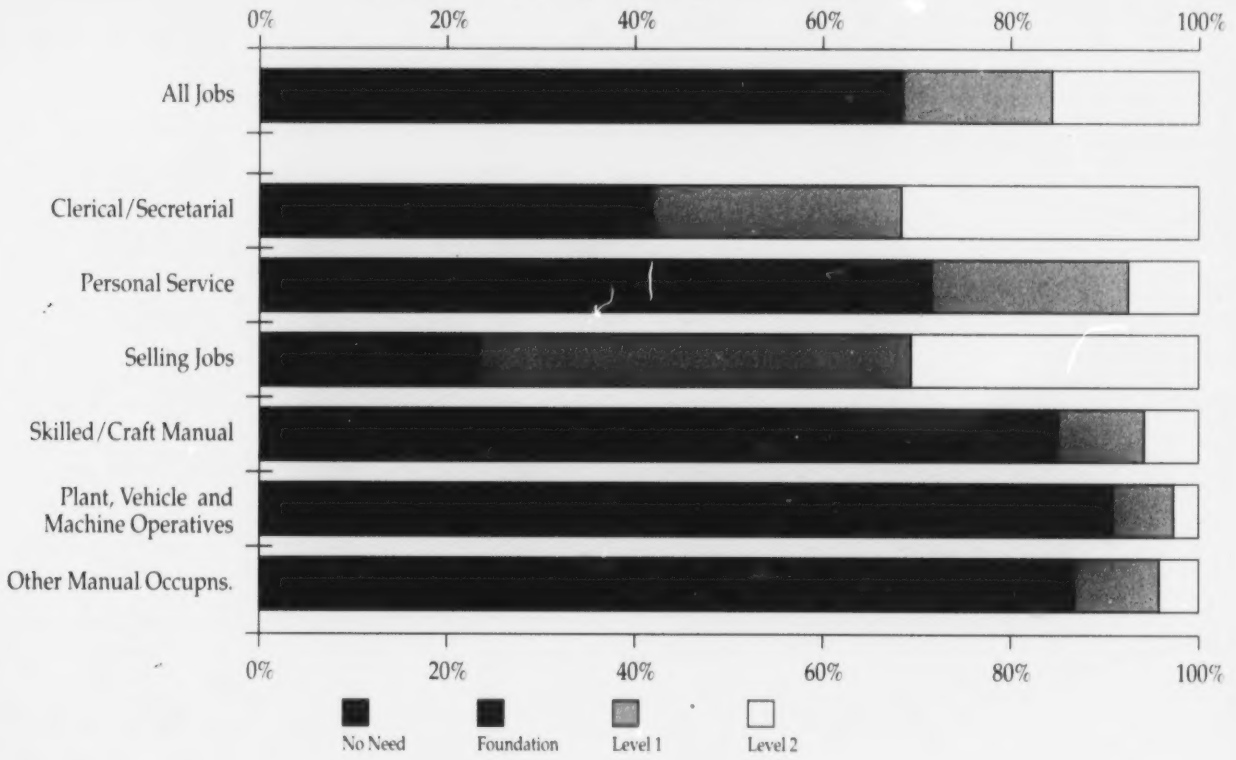


Table 2.9: **Distribution of Basic Skill Requirements for Numeracy. By SOC Minor Occupational Groups**

Numeracy Skills	Average Numeracy Score	Numeracy: Skill level required by % of employers shown:					N =
		Not Needed at all	Partial Need	Foundation Level	Level 1	Level 2	
	%	%	%	%	%	%	
All Jobs	.96	12	27	42	15	3	23280
Occupations (at SOC 2 Digit Level)							
Pub. Sec. Clericals 40	1.27	4	19	48	24	5	279
Numerical Clerks 41	1.68	1	6	43	42	8	874
Filing Clerks 42	1.36	4	10	53	26	7	430
Other Clerks 43	1.50	3	10	45	35	7	2126
Stores Clerks 44	.80	13	33	42	11	1	427
Secretaries/WP 45	1.13	8	22	45	22	4	1336
Receptionists etc. 46	.86	10	29	52	9	1	520
Other Clerical/Sec 49	1.38	10	18	35	24	14	177
Construction Trades 50	1.09	7	27	41	15	10	432
Machining Trades 51	1.02	5	25	54	12	3	660
Electrical/Electronic Trades 52	1.20	4	20	49	22	5	508
Metal Forming Trades 53	.92	7	27	54	10	2	488
Vehicle Trades 54	.79	13	33	45	9	1	600
Textile Trades 55	.45	28	49	20	3	0	355
Printing Trades 56	.93	7	30	48	12	3	317
Woodworking Trades 57	1.01	5	26	52	13	4	267
Food Prep Trades 58	.72	18	32	40	11	0	57
Other Trades 59	.98	15	27	39	16	5	400
NCOs etc. 60	1.00	0	25	75	0	0	4
Security Occupations 61	.60	30	32	29	8	1	121
Catering Occupations 62	.76	8	41	42	7	1	888
Travel Rel. Occupations 63	.90	12	35	35	12	6	17
Health Occupations 64	.65	29	29	32	9	1	1854
Childcare Occupations 65	.97	19	21	38	20	2	423
Hairdressing etc. 66	.83	10	27	57	6	0	176
Domestic Staff 67	.62	23	35	33	8	0	144
Other Personal Services 69	1.00	15	23	41	18	4	608
Buyer etc. 70	1.67	8	8	33	29	21	24
Sales Reps 71	1.73	1	7	34	45	13	469
Sales Assistants 72	1.20	2	16	62	18	3	1743
Salespersons 73	1.24	1	13	61	24	1	79
Other Sales Occupations 79	1.24	6	26	38	22	8	114
FDT Operatives 80	.55	22	40	34	3	0	36
Textiles Ops 81	.44	28	43	27	1	1	196
Chemicals etc. Ops 82	.69	11	41	42	4	1	473
Metal Making Ops 83	.60	14	41	44	1	0	108
Metal Working Ops 84	.85	12	28	48	9	3	316
Assemblers 85	.59	16	44	36	3	0	467
Other Process Ops 86	.54	20	44	33	3	0	544
Road Transport Ops 87	.62	15	44	36	4	0	943
Other Transport Ops 88	.71	13	43	35	8	1	331
Other Operatives 89	.67	13	41	41	4	1	669
Others Agric. 90	.70	20	31	41	8	0	219
Others Manuf. 91	.61	20	39	36	4	1	274
Others Construction 92	.73	11	33	48	8	0	151
Others Transport 93	.42	35	37	26	2	0	65
Others Comms. 94	.50	25	45	24	6	0	83
Others Sales etc. 95	.55	35	28	31	6	1	934
All Others 99	.63	23	33	35	7	1	254

Table 2.10: **Distribution of Basic Skill Requirements for Numeracy Skill 1: 'Handle cash or other financial transactions accurately using till, calculator, etc.' By SOC Minor Occupational Groups**

Numeracy Skill 1 Handle Financial Transactions Skill Level required by % of Employers shown	Average Skill Need	Skill Not Needed	Foundation Level	Level 1	Level 2	N =
		%	%	%	%	
All Jobs	1.00	45	20	18	13	22951
Occupations (at SOC 2 Digit Level)						
Pub. Sec. Clericals 40	1.51	19	33	24	23	275
Numerical Clerks 41	2.36	8	9	20	62	870
Filing Clerks 42	1.73	13	30	24	30	424
Other Clerks 43	1.82	17	18	30	34	2106
Stores Clerks 44	.73	58	16	16	7	421
Secretaries/WP 45	1.31	34	21	26	19	1323
Receptionists etc. 46	1.12	28	41	21	10	515
Other Clerical/Sec 49	1.58	37	8	15	40	176
Construction Trades 50	.56	69	13	6	10	424
Machining Trades 51	.47	70	14	8	5	644
Electrical/Electronic Trades 52	.71	61	14	13	10	499
Metal Forming Trades 53	.34	76	13	6	2	470
Vehicle Trades 54	.46	69	17	9	3	584
Textile Trades 55	.20	83	9	3	1	347
Printing Trades 56	.53	68	14	12	5	312
Woodworking Trades 57	.40	72	15	6	4	257
Food Prep Trades 58	.70	56	18	23	2	56
Other Trades 59	.59	65	17	10	7	394
NCOs etc. 60	.75	25	75	0	0	4
Security Occupations 61	.64	53	31	10	4	120
Catering Occupations 62	1.31	15	45	33	6	887
Travel Rel. Occupations 63	1.41	18	41	24	18	17
Health Occupations 64	.57	59	24	12	3	1814
Childcare Occupations 65	1.00	41	28	20	10	420
Hairdressing etc. 66	1.06	12	69	13	2	174
Domestic Staff 67	.58	62	22	10	6	142
Other Personal Services 69	1.02	36	33	20	9	602
Buyer etc. 70	1.67	25	17	25	33	24
Sales Reps 71	2.04	13	14	30	43	465
Sales Assistants 72	1.99	4	18	51	26	1736
Salespersons 73	1.82	6	28	43	23	79
Other Sales Occupations 79	1.67	26	13	26	33	113
FDT Operatives 80	.30	80	10	7	2	331
Textiles Ops 81	.20	87	8	3	2	195
Chemicals etc. Ops 82	.28	81	10	6	2	464
Metal Making Ops 83	.23	79	15	4	0	108
Metal Working Ops 84	.34	78	12	3	5	306
Assemblers 85	.23	83	10	5	1	457
Other Process Ops 86	.21	84	12	3	1	535
Road Transport Ops 87	.72	48	33	14	3	929
Other Transport Ops 88	.33	77	13	6	3	323
Other Operatives 89	.27	78	14	4	1	656
Others Agric. 90	.41	68	16	9	1	212
Others Manuf. 91	.27	80	12	5	1	266
Others Construction 92	.30	76	17	7	0	149
Others Transport 93	.32	75	20	2	3	65
Others Comms. 94	.60	55	33	6	5	83
Others Sales etc. 95	.76	51	24	18	4	929
All Others 99	.35	76	11	8	2	249

- more than nine out of ten Selling Jobs require financial skills, and three quarters require them beyond Foundation Level, although Clerical/Secretarial Jobs are just as likely to need them at Level 2. The manual occupations have low requirements of the ability to handle financial transactions, and it is not needed in around seven out of ten manual jobs.

These occupational variations are explored in greater detail in Table 2.10, where we present the same data, but broken down into our fine occupational groups. We do not comment on the results here, and readers should refer to section 2.2 for guidance in interpreting the Table.

Numeracy Skill 2: Keeping Records in Numerical or Graphical Form

The second component skill for numeracy is the ability to keep records in numerical or graphical form. Keeping numerical records is the most widely sought numerical component skill, and the one most often required at the higher levels. As Chart 2.10 shows:

- three quarters of all jobs need record keeping skills, and over half require them at Level 1 or 2, and
- most of the demand for the higher skill levels is concentrated among Clerical/Secretarial and Selling Jobs, with 80 and 70 per cent respectively needing the ability above Foundation Level.

These occupational variations are explored in greater detail in Table 2.11, where we present the same data, but broken down into our fine occupational groups.

Numeracy Skill 3: Making and Monitoring Schedules and Budgets

The third component skill for numeracy is the ability to make or monitor schedules or budgets in order to plan the use of time or money. Making schedules or budgets is the least widely needed numerical skill. As Chart 2.11 shows:

- two thirds of all jobs simply do not need the ability to make schedules or budgets, and it is rarely sought at the higher skill levels, and
- this pattern is most marked for the less skilled manual occupations, with 85 per cent of Plant, Vehicle and Machine Operators and Other Manual Jobs not needing the skill, and only a very small handful requiring the highest level. The ability to make schedules and budgets is most needed by Clerical/Secretarial Jobs, and these jobs have the highest requirement of the skill at Level 2.

These occupational variations are explored in greater detail in Table 2.12, where we present the same data, but broken down into our fine occupational groups.

Chart 2.10: **Requirements for Numeracy Skill 2: 'Keep records in numerical or graphical form.' By Occupation. England and Wales**

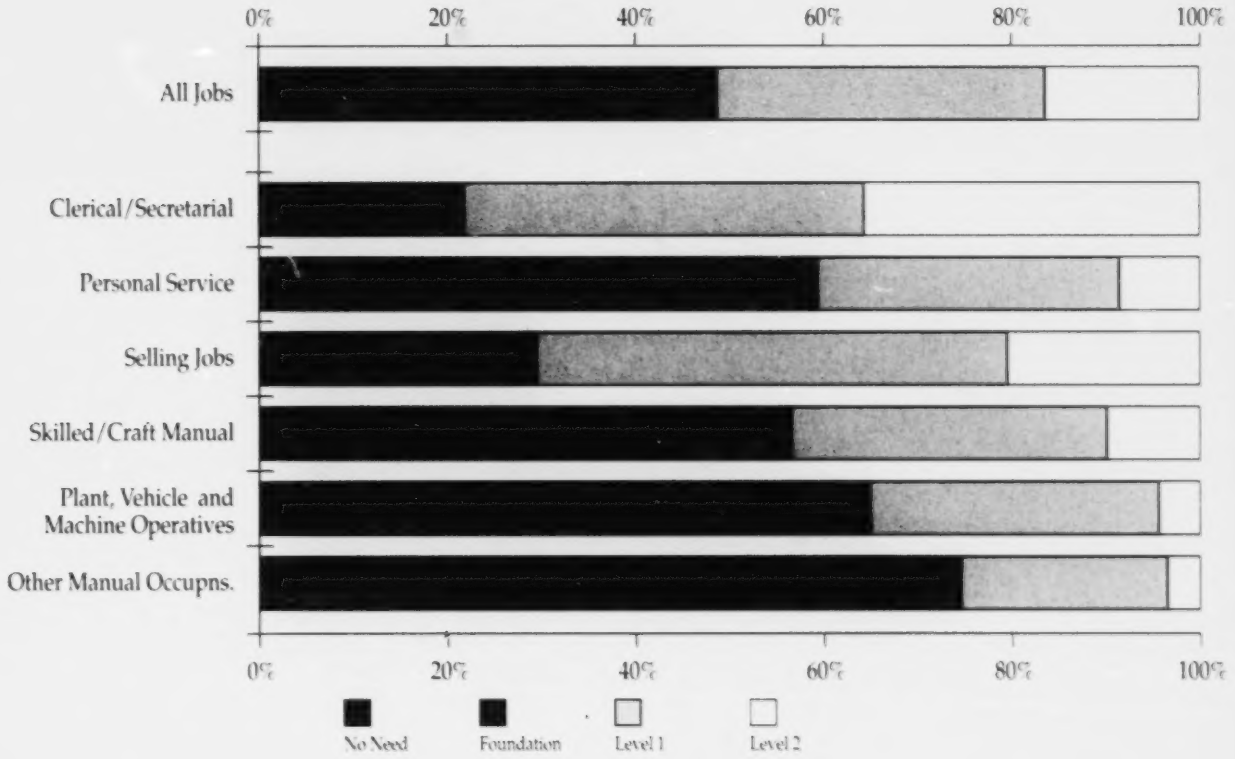


Table 2.11: **Distribution of Basic Skill Requirements for Numeracy Skill 2: 'Keep records in numerical or graphical form.' By SOC Minor Occupational Groups**

Numeracy Skill 2 Keep Numerical Records Skill Level required by % of Employers shown	Average Skill Need	Skill Not Needed	Foundation Level	Level 1	Level 2	N =
		%	%	%	%	
All Jobs	1.40	25	23	34	15	23012
Occupations (at SOC 2 Digit Level)						
Pub. Sec. Clericals 40	2.04	6	16	45	32	278
Numerical Clerks 41	2.31	4	10	36	49	869
Filing Clerks 42	2.00	7	16	46	30	424
Other Clerks 43	2.23	5	9	43	42	2104
Stores Clerks 44	1.45	23	21	44	12	424
Secretaries/WP 45	1.81	14	17	43	25	1326
Receptionists etc. 46	1.54	16	26	44	13	516
Other Clerical/Sec 49	1.97	16	13	29	42	176
Construction Trades 50	1.14	38	20	27	12	426
Machining Trades 51	1.33	24	26	39	9	652
Electrical/Electronic Trades 52	1.62	19	19	40	20	502
Metal Forming Trades 53	1.04	35	27	32	4	474
Vehicle Trades 54	1.03	39	23	30	6	590
Textile Trades 55	.79	40	39	16	2	347
Printing Trades 56	1.34	23	28	40	9	313
Woodworking Trades 57	.99	39	25	29	4	258
Food Prep Trades 58	1.07	35	21	39	2	55
Other Trades 59	1.31	31	22	31	15	398
NCOs etc. 60	1.50	25	0	75	0	4
Security Occupations 61	1.09	32	32	28	7	120
Catering Occupations 62	.91	43	26	24	5	865
Travel Rel. Occupations 63	1.35	29	24	29	18	17
Health Occupations 64	1.06	37	25	29	7	1836
Childcare Occupations 65	1.42	26	19	40	14	418
Hairdressing etc. 66	1.15	28	29	37	3	168
Domestic Staff 67	1.04	31	37	26	5	142
Other Personal Services 69	1.43	25	23	34	17	603
Buyer etc. 70	2.17	8	4	50	38	24
Sales Reps 71	2.07	8	12	43	35	463
Sales Assistants 72	1.60	19	15	51	13	1715
Salespersons 73	1.84	4	27	48	19	77
Other Sales Occupations 79	1.55	25	16	37	21	112
FDT Operatives 80	1.03	32	36	31	2	334
Textiles Ops 81	.88	40	34	23	3	195
Chemicals etc. Ops 82	1.23	22	37	35	5	471
Metal Making Ops 83	1.14	24	39	34	2	108
Metal Working Ops 84	1.19	31	27	32	9	311
Assemblers 85	1.14	28	34	34	4	465
Other Process Ops 86	1.10	28	37	32	3	542
Road Transport Ops 87	.99	29	45	23	2	933
Other Transport Ops 88	1.16	29	32	32	6	331
Other Operatives 89	1.10	29	35	32	3	666
Others Agric. 90	1.15	30	29	33	6	218
Others Manuf. 91	1.08	31	33	33	3	272
Others Construction 92	.84	41	35	22	1	149
Others Transport 93	.88	43	31	22	5	65
Others Comms. 94	.88	36	42	19	2	83
Others Sales etc. 95	.75	53	21	22	3	922
All Others 99	.96	39	29	26	4	251

Chart 2.11: **Requirements for Numeracy Skill 3: 'Make or monitor schedules or budgets in order to plan the use of time or money.' By Occupation. England and Wales**

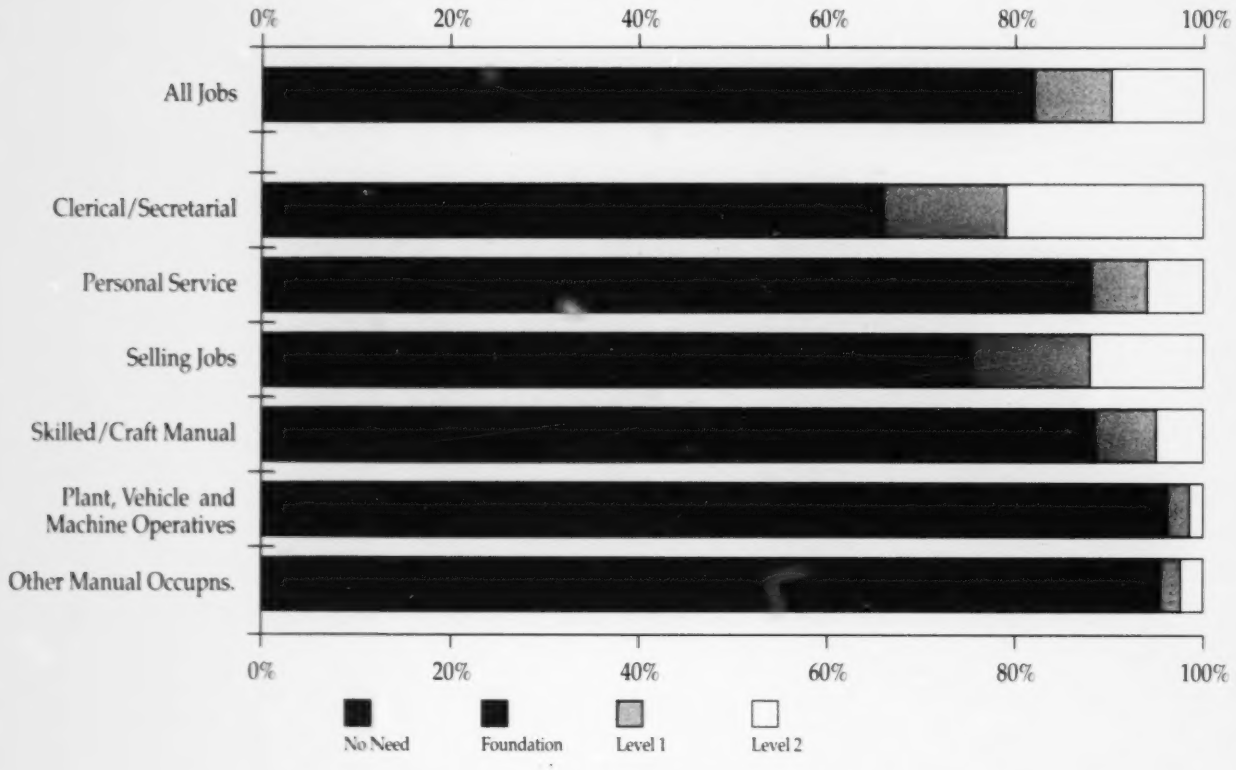


Chart 2.12: **Requirements for Numeracy Skill 4: 'Calculate lengths, areas, weights or volumes accurately using appropriate tools.' By Occupation. England and Wales**

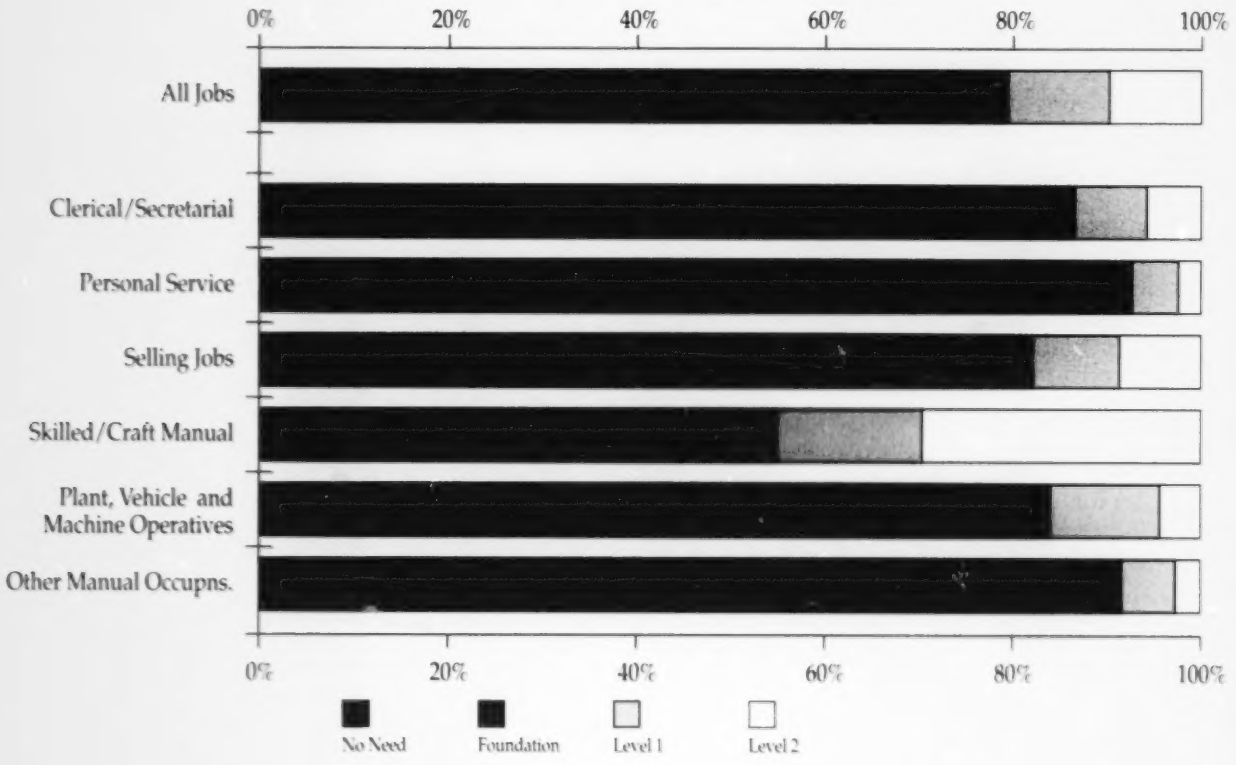


Table 2.12: **Distribution of Basic Skill Requirements for Numeracy Skill 3: 'Make or monitor schedules or budgets in order to plan the use of time or money.' By SOC Minor Occupational Groups**

Numeracy Skill 3 Make Schedules or Budgets Skill Level required by % of Employers shown	Average Skill Need	Skill Not Needed	Foundation Level	Level 1	Level 2	N =
		%	%	%	%	
All Jobs	.58	65	15	8	9	22683
Occupations (at SOC 2 Digit Level)						
Pub. Sec. Clericals 40	1.04	48	18	12	20	273
Numerical Clerks 41	1.41	39	13	16	32	861
Filing Clerks 42	1.00	48	19	12	18	416
Other Clerks 43	1.28	39	17	19	24	2086
Stores Clerks 44	.29	83	6	5	4	419
Secretaries/WP 45	.91	49	22	15	13	1311
Receptionists etc. 46	.42	70	20	6	3	507
Other Clerical/Sec 49	1.16	48	12	10	27	172
Construction Trades 50	.73	63	13	7	15	422
Machining Trades 51	.39	74	14	6	4	645
Electrical/Electronic Trades 52	.70	59	19	12	9	493
Metal Forming Trades 53	.29	79	11	5	3	467
Vehicle Trades 54	.32	76	14	6	2	580
Textile Trades 55	.12	86	7	2	0	338
Printing Trades 56	.45	71	15	6	6	310
Woodworking Trades 57	.41	71	16	6	4	259
Food Prep Trades 58	.20	81	9	5	0	54
Other Trades 59	.67	62	17	9	11	390
NCOs etc. 60	.75	50	25	25	0	4
Security Occupations 61	.32	78	12	5	3	121
Catering Occupations 62	.37	74	14	6	3	857
Travel Rel. Occupations 63	.35	82	6	6	6	17
Health Occupations 64	.44	70	17	7	4	1808
Childcare Occupations 65	.81	51	26	8	12	414
Hairdressing etc. 66	.40	61	28	4	1	161
Domestic Staff 67	.37	73	17	6	3	141
Other Personal Services 69	.78	55	20	12	11	598
Buyer etc. 70	1.71	29	17	8	46	24
Sales Reps 71	1.61	26	17	25	30	459
Sales Assistants 72	.49	69	16	7	6	1676
Salespersons 73	.79	54	20	14	10	78
Other Sales Occupations 79	.71	63	13	12	12	112
FDT Operatives 80	.18	86	8	4	1	328
Textiles Ops 81	.11	93	5	1	2	195
Chemicals etc. Ops 82	.21	85	9	3	2	458
Metal Making Ops 83	.07	90	7	0	0	107
Metal Working Ops 84	.24	83	9	4	2	303
Assemblers 85	.14	88	9	2	1	457
Other Process Ops 86	.14	89	7	2	1	531
Road Transport Ops 87	.24	79	16	2	1	922
Other Transport Ops 88	.21	82	12	4	1	321
Other Operatives 89	.19	82	12	2	1	653
Others Agric. 90	.25	80	8	3	3	208
Others Manuf. 91	.18	86	9	3	1	269
Others Construction 92	.30	78	13	5	2	148
Others Transport 93	.09	92	6	2	0	65
Others Comms. 94	.21	85	8	2	2	82
Others Sales etc. 95	.31	78	12	5	3	917
All Others 99	.21	84	6	4	2	246

Table 2.13: **Distribution of Basic Skill Requirements for Numeracy Skill 4: 'Calculate lengths, areas, weights or volumes accurately using appropriate tools.' By SOC Minor Occupational Groups**

Numeracy Skill 4 Calculate lengths, areas, etc. Skill Level required by % of Employers shown	Average Skill Need	Skill Not Needed	Foundation Level	Level 1	Level 2	N =
		%	%	%	%	
All Jobs	.81	47	31	9	9	22807
Occupations (at SOC 2 Digit Level)						
Pub. Sec. Clericals 40	.42	70	19	5	4	273
Numerical Clerks 41	.58	60	24	7	6	853
Filing Clerks 42	.66	54	30	6	7	416
Other Clerks 43	.64	56	28	8	6	2080
Stores Clerks 44	.67	48	38	10	3	420
Secretaries/WP 45	.47	65	24	7	3	1314
Receptionists etc. 46	.29	75	20	3	1	504
Other Clerical/Sec 49	.76	62	14	7	16	174
Construction Trades 50	1.90	10	30	17	41	429
Machining Trades 51	1.82	13	31	17	39	655
Electrical/Electronic Trades 52	1.77	16	27	20	36	500
Metal Forming Trades 53	1.89	13	26	20	41	485
Vehicle Trades 54	1.27	19	48	20	13	595
Textile Trades 55	.60	54	30	7	5	340
Printing Trades 56	1.38	19	44	14	21	312
Woodworking Trades 57	2.08	7	23	22	46	266
Food Prep Trades 58	.76	37	46	11	2	54
Other Trades 59	1.31	27	34	18	20	398
NCOs etc. 60	1.00	25	50	25	0	4
Security Occupations 61	.32	79	9	7	2	119
Catering Occupations 62	.36	68	25	4	1	854
Travel Rel. Occupations 63	.47	76	12	0	12	17
Health Occupations 64	.47	62	29	5	2	1814
Childcare Occupations 65	.62	53	33	7	4	415
Hairdressing etc. 66	.61	44	43	4	2	160
Domestic Staff 67	.48	57	38	3	1	142
Other Personal Services 69	.75	52	27	9	10	597
Buyer etc. 70	1.13	46	17	17	21	24
Sales Reps 71	1.17	35	30	15	18	457
Sales Assistants 72	.66	50	36	8	5	1696
Salespersons 73	.48	57	35	4	1	77
Other Sales Occupations 79	.98	42	29	16	12	113
FDT Operatives 80	.65	48	41	8	2	333
Textiles Ops 81	.55	56	37	4	3	194
Chemicals etc. Ops 82	.97	32	45	14	8	465
Metal Making Ops 83	.97	34	43	11	10	107
Metal Working Ops 84	1.53	22	33	14	30	309
Assemblers 85	.78	43	41	9	6	459
Other Process Ops 86	.65	48	40	7	3	532
Road Transport Ops 87	.49	59	32	7	1	923
Other Transport Ops 88	1.10	30	44	11	14	325
Other Operatives 89	1.05	30	43	17	9	661
Others Agric. 90	.92	33	39	19	3	211
Others Manuf. 91	.86	38	43	13	5	271
Others Construction 92	1.47	13	42	26	17	147
Others Transport 93	.37	68	28	5	0	65
Others Comms. 94	.31	74	19	6	0	83
Others Sales etc. 95	.36	68	24	4	1	916
All Others 99	.92	38	39	10	10	249

Numeracy Skill 4: Calculating Lengths, Areas, Weights or Volumes

The fourth component skill for numeracy is the ability to calculate lengths, areas, weights or volumes accurately using appropriate tools. The ability to calculate lengths and areas shows a similar pattern to making schedules and budgets, albeit with fewer jobs that do not need calculation skills and rather more requiring them at Foundation Level. As Chart 2.12 shows:

- just under half our jobs do not need calculation skills, and just under one third only require them at the Foundation Level, and
- calculating lengths and areas is mainly required of Skilled/Craft Manual Jobs, and demand for this skill at higher levels is almost exclusively among these jobs.

These occupational variations are explored in greater detail in Table 2.13, where we present the same data, but broken down into our fine occupational groups.

2.3.4 Oral Communication Skills at Work

The ALBSU Standards for oral communications were collapsed into two component skills, as follows:

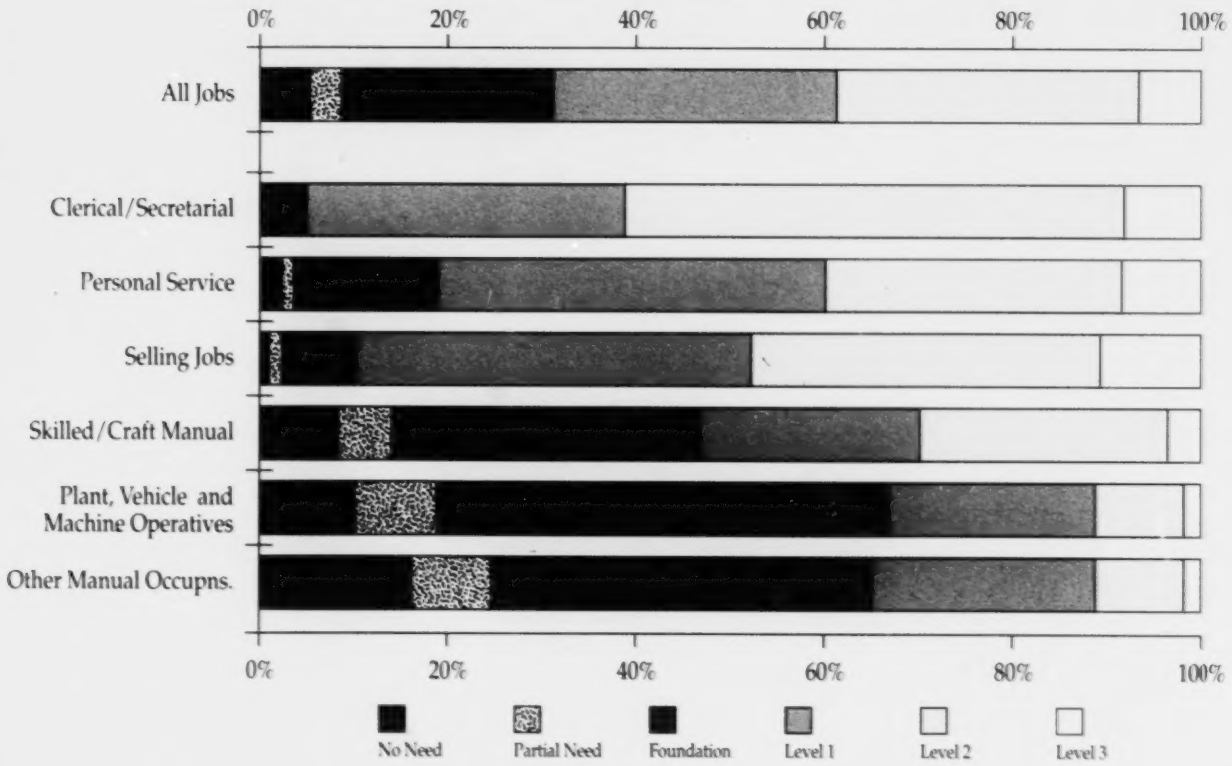
- Oral Communication Skill 1 : 'Giving information to other people on the telephone or face to face', and
- Oral Communication Skill 2 : 'Getting information from other people on the telephone or face to face'.

In Chart 2.13 we present the results for oral communications at the generic level. It shows that:

- few jobs can be done without oral communication skills. Only 5 per cent of jobs do not need them at all, and only 4 per cent require them below Foundation Level
- however, few jobs require oral communications at the highest level
- most of the demand for oral communication skills is spread across the range Foundation Level to Level 2. Foundation Level oral communication skills are required in a quarter of all jobs, and Level 1 and Level 2 skills are each required in just under a third of jobs, and
- even among the less skilled jobs we find over three quarters of Other Manual Occupations requiring oral communications to Foundation Level or above, although demand for the higher skill levels is generally restricted to the non-manual occupations.

These occupational variations are explored in greater detail in Table 2.14, where we present the same data, but broken down into our fine occupational groups.

2.13: **Oral Communication Skills Required. By Occupation. England and Wales**



Oral Communications Skill 1: Giving Information to Others

The first component skill for oral communications is the ability to give information to other people on the telephone or face to face. Giving information to others is slightly more sought after than getting information, although the demand for it is concentrated at Level 2. As Chart 2.14 shows:

- only 8 per cent of jobs do not need the ability to give information to other people. Fully half of all jobs require the ability at Level 2, although only 7 per cent require Level 3, and
- the concentration of overall demand for giving information at Level 2 is due to high proportions (between two thirds and three quarters) of the non-manual occupations reporting this level. All Clerical/Secretarial Jobs need to give information to others, although Selling Jobs are more likely to require the highest level. At least four fifths of all manual jobs require some level of the ability.

These occupational variations are explored in greater detail in Table 2.15, where we present the same data, but broken down into our fine occupational groups. We do not propose to comment on them here, and their presentation at this level of detail is largely for reference purposes.

Oral Communications Skill 2: Getting Information from Others

The second component skill for oral communications is the ability to get information from other people on the telephone or face to face. The pattern of demand for getting information from other people is more evenly spread across the levels than that for giving information. As Chart 2.15 shows:

- nine out of ten jobs need the ability to get information from others. Just over one quarter require each of the levels from Foundation to Level 2, and a further 10 per cent require Level 3, and
- the proportion of jobs not needing the ability to get information, or needing Foundation Level only, tends to increase as we go down the occupational spectrum, while the proportions requiring high skill levels tends to decrease, resulting in the evenly distributed pattern of overall demand for getting information.

These occupational variations are explored in greater detail in Table 2.16, where we present the same data, but broken down into our fine occupational groups. We do not propose to comment on them here, and their presentation at this level of detail is largely for reference purposes.

2.4 Variation between Employers in Basic Skills Needed

In the individual TEC reports, we produced an initial analysis of this variation. We showed how the level of basic skill requirements varied according to:

- establishment size (measured by the number of employees)
- the activity in which the establishments were engaged (measured simply by their production or service sector designation)
- their ownership (whether public or private sector)
- their recent experience of labour shortage, and,
- the characteristics of their location (whether city centre, suburban, rural, etc).

However, in view of the relatively small sample size in each TEC region, we were unable to say how far such variations were the result of genuine differences between these different kinds of establishment. They could simply be a reflection of the strong differences between occupations, which were themselves differently represented among different kinds of establishments.

The size of the England and Wales database, however, allows these distinctions to be drawn out with confidence using a multivariate approach. It also allows for more depth, with establishments categorised according to their industry division rather than production or service sector, and with the addition of a 'region' variable.

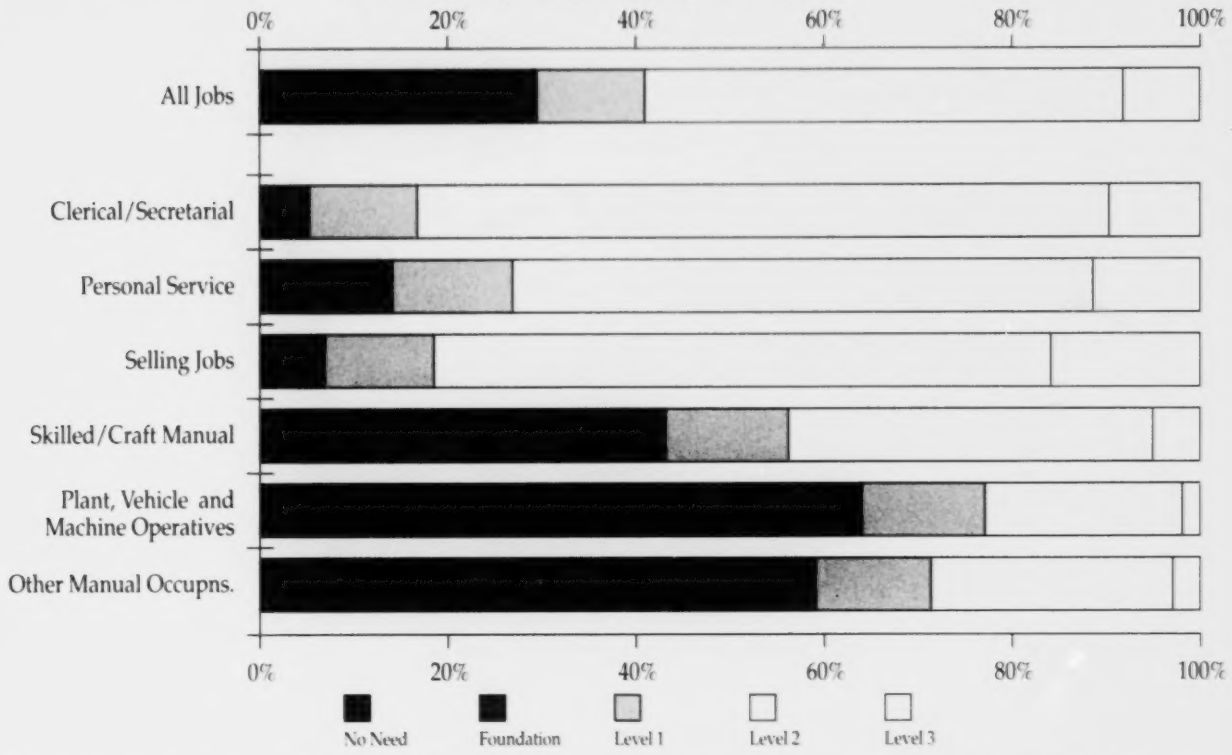
The strategy adopted here, and in subsequent chapters, is to undertake a logistic regression, or 'logit', analysis. This allows us to model statistically the probability (strictly the 'odds') of an event occurring, for example an employer needing reading skills for a particular job. We define a reference firm with certain characteristics, and look at the effect of changing one of those characteristics (e.g. shifting from the private sector to the public sector, but holding all the other variables constant) on the odds of that event occurring.

We define the reference category as a private sector firm, in the construction industry, with between 0 and 19 employees, employing mainly Other Manual workers, without recent experience of labour shortages, in a 'rural/village' labour market, and in the North. The coefficient for each variable is set equal to 1.0 for this category, and the coefficients for other values of the variable are interpreted relative to this reference category. Thus, a coefficient greater than 1.0 implies higher odds of needing reading skills than a firm in the reference category; whilst a coefficient less than 1.0 means that the odds are reduced in comparison with the reference category. As well as the value of the coefficient, we also need to look at its statistical significance, and in line with convention we take a

Table 2.14: **Distribution of Basic Skill Requirements for Oral Communications. By SOC Minor Occupational Groups**

Oral Communication Skills	Average Oral Comms. Score	Oral Communications: Skill level required by % of employers shown:						N =
		Not Needed at all	Partial Need	Foundation Level	Level 1	Level 2	Level 3	
	%	%	%	%	%	%	%	
All Jobs	2.14	5	4	24	31	31	5	23283
Occupations (at SOC 2 Digit Level)								
Pub. Sec. Clericals 40	2.95	0	0	2	30	59	9	282
Numerical Clerks 41	2.88	0	0	4	32	51	12	872
Filing Clerks 42	2.75	0	1	6	35	52	6	429
Other Clerks 43	2.83	0	0	4	31	56	7	2124
Stores Clerks 44	1.67	5	7	43	27	17	2	430
Secretaries/WP 45	2.76	0	0	5	36	53	5	1337
Receptionists etc. 46	2.77	0	0	4	37	56	2	524
Other Clerical/Sec 49	2.85	4	3	7	22	38	26	178
Construction Trades 50	1.96	7	7	30	26	21	8	429
Machining Trades 51	1.85	6	6	36	23	27	3	662
Electrical/Electronic Trades 52	2.35	3	4	18	29	40	6	508
Metal Forming Trades 53	1.59	10	9	39	21	21	0	485
Vehicle Trades 54	1.97	5	4	31	31	29	0	601
Textile Trades 55	.99	22	17	47	11	5	0	354
Printing Trades 56	1.83	6	4	40	24	22	4	312
Woodworking Trades 57	1.72	10	5	35	28	21	1	267
Food Prep Trades 58	1.48	12	11	33	33	11	0	57
Other Trades 59	1.84	11	7	32	23	20	8	399
NCOs etc. 60	2.36	0	0	0	75	25	0	4
Security Occupations 61	2.45	1	2	12	47	35	3	121
Catering Occupations 62	2.11	5	2	18	53	21	1	881
Travel Rel. Occupations 63	2.62	0	0	18	41	35	6	17
Health Occupations 64	2.46	1	1	16	39	35	7	1867
Childcare Occupations 65	2.84	1	1	11	23	46	18	424
Hairdressing etc. 66	2.17	4	2	19	49	25	1	178
Domestic Staff 67	1.54	10	8	41	24	15	2	144
Other Personal Services 69	2.72	3	1	11	33	34	19	608
Buyer etc. 70	3.38	4	0	0	9	52	35	23
Sales Reps 71	3.21	0	0	4	20	42	33	469
Sales Assistants 72	2.44	1	1	12	48	35	2	1741
Salespersons 73	2.08	3	3	22	53	18	3	79
Other Sales Occupations 79	2.80	1	0	6	32	51	10	114
FDT Operatives 80	1.30	13	7	52	20	8	1	334
Textiles Ops 81	.94	26	12	46	8	6	1	194
Chemicals etc. Ops 82	1.29	11	11	51	14	11	1	472
Metal Making Ops 83	1.30	6	8	58	19	8	0	108
Metal Working Ops 84	1.49	11	9	45	15	18	2	314
Assemblers 85	1.28	12	12	50	14	12	0	467
Other Process Ops 86	1.13	15	10	54	15	6	1	543
Road Transport Ops 87	1.67	6	8	35	39	12	1	946
Other Transport Ops 88	1.44	10	10	45	18	15	1	331
Other Operatives 89	1.29	11	10	51	17	10	0	669
Others Agric. 90	1.47	13	9	42	22	14	1	219
Others Manuf. 91	1.14	15	11	53	12	8	0	273
Others Construction 92	1.61	9	7	37	31	16	0	151
Others Transport 93	1.34	13	10	37	36	3	0	67
Others Comms. 94	1.73	13	4	24	46	13	0	83
Others Sales etc. 95	1.65	12	5	33	37	13	1	938
All Others 99	1.38	15	12	39	21	11	2	254

Chart 2.14: **Requirements for Oral Communications Skill 1: 'Give information to other people on the telephone or face to face.' By Occupation. England and Wales**



level of 0.05 or below as 'significant'. (in other words the likelihood of such a result happening purely by chance is less than five in a hundred).

Put simply, the reference firm acts as a sort of baseline, and the logit analysis shows how strongly the level of demand for each basic skill increases or decreases as each of the characteristics of that reference firm (size, sector, etc.) is changed, with all the other characteristics held constant. In effect, we are able to consider the independent effect on demand of each characteristic. Readers should note that the analysis does not rely on choosing particular characteristics for the reference firm. The ones shown above, and used in the analysis, are simply convenient.

2.4.1 Propensity to Need Basic Skills at all

In Table 2.17 we present the results of logit analyses for each of the four generic skills, where the event is needing the skill to at least Foundation Level compared with not needing the skill. The results confirm that occupation remains a highly significant influence on the propensity to need basic skills once these other variables are taken into account, although many of the other variables are also a significant influence. In particular the Table shows that:

- the odds of needing basic skills increase as we go up the occupational spectrum. Compared with Other Manual Jobs, the odds of needing reading, writing and oral communications are around 36 times higher for Clerical/Secretarial Jobs, and the odds of needing numeracy are 11 times higher for Selling Jobs than for Other Manual Jobs

- size is generally a significant influence, and we find two patterns emerging. The likelihood of needing reading, writing and oral communications increases with firm size, so that compared with a firm with under 20 employees the odds of needing these communication skills are around 2.3 times higher for a firm with over 200 employees. However, firms employing between 20 and 200 employees are less likely to need numeracy skills than one employing under 20 people

- the industry in which the firm operates is often a significant influence on needing basic skills, and we can draw two general conclusions. Compared to a construction firm, those in the services (i.e. transport and communication, banking and other services) are more likely to need the three communication skills and less likely to need numeracy skills. There are no significant differences in basic skill needs between the manufacturing and construction industries

- the odds of needing basic skills are around 1.2 times higher for a firm in the public sector, compared with a private sector firm, and these ownership effects are statistically significant

- the incidence of labour shortage is a significant influence on the propensity to need basic skills. Compared with a firm experiencing no labour shortages, the odds of needing basic skills increase with the incidence of labour shortage
- the influence of the firm's labour market (ie urban, suburban, rural, etc.) is sometimes significant, although the only clear pattern is that compared with a firm in a rural area, the odds of needing reading, writing and numeracy are around 1.2 times higher for firms in city suburbs and large/medium towns
- there is very little significant variation in needing basic skills by region.

2.4.2 Propensity to Need High Level Basic Skills

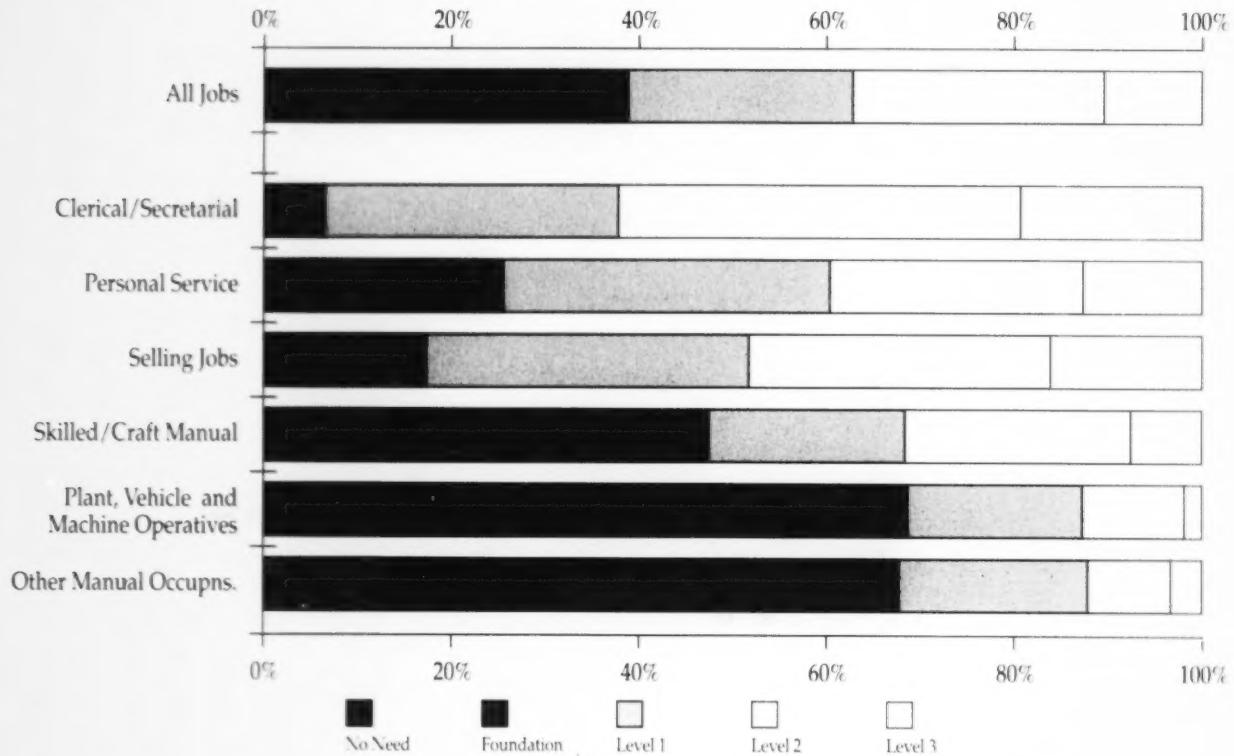
In the previous section, we have used multivariate logit analysis to analyse the effect of occupational and establishment characteristics on whether basic skills are needed or not. Now we shift the focus of our analysis to consider whether or not they are needed to a higher level. Table 2.18 shows the results of logit analyses reported above, for all four generic skills, where the event this time is needing the skill to Level 1 or above, compared with needing the skill to Foundation Level. The results again confirm that the influence of occupation is highly significant, while the effects of the other variables are generally less significant and more erratic.

The results tend to follow the pattern of the previous analyses, and we will not set them out again. However, the influence of size on the propensity to need high level skills is opposite to that above, in that the odds of needing high level basic skills are lower for firms employing more than 20 people compared with those employing less than 20, although these results are only consistently significant for oral communication skills.

2.5 Language Skills

The ALBSU Standards are concerned with establishing levels of competence to read, write, talk and understand English. Of course, some people may have superb communication skills, but in another language. This can lead to a problem where employees, or at least some of them, do not share a common language with their employer, or with customers, or indeed with other people with whom their employer may require them to communicate. It is, of course, quite possible that employer, employee, customers, etc. all share a language other than English, in which case, there may be no communication problem at all.

Chart 2.15: **Requirements for Oral Communications Skill 2: 'Get information from other people on the telephone or face to face.' By Occupation. England and Wales**



In *'Basic Skills and Jobs'*, we examined the extent to which English was the main business language in establishments and the first language of employees in establishments, as well as the degree of employer dissatisfaction with the language skills of their employees. The results show that while English is the main business language in 99 per cent of establishments, it is the first language of all employees in only 82 per cent of establishments, and there is a minority who perceive language skills among their employees to be unsatisfactory. In this section we shall be concerned with the adequacy or otherwise of employees' language skills.

Table 2.19 shows the distribution of satisfaction with language skills among employees, broken down by occupational groups. We can see that:

- seven out of ten employers feel that the language skills of their employees are more than adequate, and a further 17 per cent feel their employees' language skills are fairly adequate

- there is a minority of employers, however, who feel that language skills among employers are unsatisfactory. One in ten report that language skills are 'only just adequate', and 2 per cent of employers think that employees' language skills are inadequate

- high levels of satisfaction are much more pronounced in the non-manual occupations. Three quarters of Clerical/Secretarial and Selling employees have more than adequate language skills, while less than two thirds of employers of Semi Skilled Operative Jobs and Other Manual Jobs report high levels of satisfaction with employees' language skills, and

- there is relatively little occupational variation in the proportions of employers reporting unsatisfactory basic skills, although Other Manual employees are most likely to have less than adequate or completely inadequate language skills.

2.6 Summary

This concludes our discussion on the requirements for basic skills at work. It is worth emphasising that we have been looking at employers' perceptions of those needs, rather than at any independent audit. In our view, since employers use their beliefs as the basis for their recruitment, selection and utilisation decisions, these beliefs are the operative standards in the labour market, whatever may be the 'real' standards required by the jobs. They are therefore the ones with which the labour market analyst should be concerned.

We have established the levels of reading, writing, numeracy and oral communication skills required for a range of jobs, using an objective scale of performance (the Communication Skills and Numeracy Standards of the Basic Skills Accreditation Initiative).

The research shows that relatively few jobs can be done without basic reading, writing, numeracy and oral communication skills, and that there is considerable demand for the higher level basic skills in jobs that are from the top of the labour market. Behind relatively high average requirements there is a substantial variation between and within these jobs and in the precise mix of skills needed by employers.

Occupation is the main influence on the level of basic skills required and we have shown the level of basic skills required for 49 separate classifications. These form an effective reference of the level of basic skills required at a very detailed level. Over the occupational effect, establishment size, industry and ownership all exert an independent effect on the level of basic skills needed.

Table 2.15: **Distribution of Basic Skill Requirements for Oral Communication Skill 1: 'Give information to other people on the telephone or face to face.' By SOC Minor Occupational Groups**

Oral Comms. Skill 1 Give information to Others Skill Level required by % of Employers shown	Average Skill Need	Skill Not Needed	Foundation Level	Level 1	Level 2	Level 3	N =
		%	%	%	%	%	
All Jobs	2.27	8	21	13	49	7	23175
Occupations (at SOC 2 Digit Level)							
Pub. Sec. Clericals 40	3.00	0	1	9	79	11	281
Numerical Clerks 41	2.94	1	3	12	69	14	872
Filing Clerks 42	2.82	1	5	11	75	7	427
Other Clerks 43	2.90	0	3	12	75	9	2121
Stores Clerks 44	1.77	8	44	13	32	2	428
Secretaries/WP 45	2.81	0	4	15	74	6	1333
Receptionists etc. 46	2.88	1	3	7	85	3	523
Other Clerical/Sec 49	2.90	6	8	9	46	31	177
Construction Trades 50	2.02	12	27	14	36	9	427
Machining Trades 51	1.91	10	34	13	39	3	653
Electrical/Electronic Trades 52	2.40	6	17	14	56	6	506
Metal Forming Trades 53	1.60	19	35	12	33	1	479
Vehicle Trades 54	2.04	7	29	17	46	1	597
Textile Trades 55	.99	32	49	5	12	0	350
Printing Trades 56	1.89	10	34	16	34	5	311
Woodworking Trades 57	1.77	15	30	16	35	1	262
Food Prep Trades 58	1.63	18	35	14	33	0	57
Other Trades 59	1.94	14	29	16	29	11	396
NCOs etc. 60	2.50	0	0	50	50	0	4
Security Occupations 61	2.62	3	7	18	65	5	121
Catering Occupations 62	2.41	6	11	21	59	2	880
Travel Rel. Occupations 63	2.82	0	18	6	5	24	17
Health Occupations 64	2.68	2	13	10	65	9	1855
Childcare Occupations 65	2.96	2	9	5	60	24	424
Hairdressing etc. 66	2.52	4	13	15	62	5	178
Domestic Staff 67	1.65	14	39	17	28	2	144
Other Personal Services 69	2.95	4	6	9	54	26	607
Buyer etc. 70	3.30	4	0	4	43	48	23
Sales Reps 71	3.33	0	3	9	40	48	469
Sales Assistants 72	2.75	2	5	13	75	4	1735
Salespersons 73	2.28	4	18	30	43	5	79
Other Sales Occupations 79	2.85	1	4	18	63	13	113
FDT Operatives 80	1.37	17	50	12	19	1	332
Textiles Ops 81	.97	32	50	7	9	1	193
Chemicals etc. Ops 82	1.33	16	55	9	18	1	466
Metal Making Ops 83	1.40	9	59	12	18	0	108
Metal Working Ops 84	1.50	18	45	8	26	3	311
Assemblers 85	1.34	17	53	7	21	1	464
Other Process Ops 86	1.21	21	55	8	15	1	541
Road Transport Ops 87	1.84	10	30	26	32	1	942
Other Transport Ops 88	1.50	15	46	12	25	1	328
Other Operatives 89	1.36	17	51	11	19	1	665
Others Agric. 90	1.56	17	38	17	22	4	218
Others Manuf. 91	1.18	21	55	7	15	1	271
Others Construction 92	1.69	12	37	21	30	0	151
Others Transport 93	1.49	13	42	27	18	0	67
Others Comms. 94	1.94	14	21	19	44	0	83
Others Sales etc. 95	1.87	14	28	15	41	1	934
All Others 99	1.45	22	39	11	25	2	252

Table 2.16: **Distribution of Basic Skill Requirements for Oral Communication Skill 2: 'Get information from other people on the telephone or face to face.' By SOC Minor Occupational Groups**

Oral Comms. Skill 2 Get information from Others Skill Level required by % of Employers shown	Average Skill Need	Skill Not Needed	Foundation Level	Level 1	Level 2	Level 3	N =
		%	%	%	%	%	
All Jobs	2.02	9	25	26	26	10	22984
Occupations (at SOC 2 Digit Level)							
Pub. Sec. Clericals 40	2.89	0	3	28	45	23	279
Numerical Clerks 41	2.81	1	6	28	41	23	867
Filing Clerks 42	2.69	1	7	32	38	20	426
Other Clerks 43	2.77	1	5	29	46	18	2106
Stores Clerks 44	1.55	11	46	23	15	4	424
Secretaries/WP 45	2.72	1	4	34	44	16	1326
Receptionists etc. 46	2.65	1	7	34	43	16	520
Other Clerical/Sec 49	2.80	6	10	21	25	38	178
Construction Trades 50	1.90	11	31	23	21	11	424
Machining Trades 51	1.79	11	37	19	25	7	654
Electrical/Electronic Trades 52	2.31	5	23	21	34	15	500
Metal Forming Trades 53	1.57	14	43	17	22	3	480
Vehicle Trades 54	1.91	10	27	26	31	4	592
Textile Trades 55	.97	28	53	9	7	1	348
Printing Trades 56	1.76	10	39	19	22	7	308
Woodworking Trades 57	1.66	13	37	23	24	3	263
Food Prep Trades 58	1.30	19	39	32	9	0	59
Other Trades 59	1.75	16	33	21	16	12	394
NCOs etc. 60	2.25	0	0	75	25	0	4
Security Occupations 61	2.27	4	16	39	29	11	119
Catering Occupations 62	1.78	12	18	46	18	2	849
Travel Rel. Occupations 63	2.41	0	12	53	18	18	17
Health Occupations 64	2.25	4	21	32	28	13	1846
Childcare Occupations 65	2.72	3	13	18	38	26	419
Hairdressing etc. 66	1.76	10	26	37	18	3	165
Domestic Staff 67	1.42	18	41	22	15	2	141
Other Personal Services 69	2.49	8	11	28	26	25	602
Buyer etc. 70	3.35	4	0	9	30	57	23
Sales Reps 71	3.10	0	5	19	33	41	464
Sales Assistants 72	2.13	8	14	39	31	5	1712
Salespersons 73	1.88	8	20	52	14	5	78
Other Sales Occupations 79	2.74	3	5	31	37	24	113
FDT Operatives 80	1.22	18	53	18	10	1	331
Textiles Ops 81	.91	33	52	7	5	3	194
Chemicals etc. Ops 82	1.24	18	54	14	11	1	467
Metal Making Ops 83	1.21	13	62	13	10	0	107
Metal Working Ops 84	1.46	15	50	12	17	5	312
Assemblers 85	1.22	20	52	15	11	2	461
Other Process Ops 86	1.06	20	61	11	6	1	535
Road Transport Ops 87	1.49	15	36	32	13	2	927
Other Transport Ops 88	1.36	17	50	13	15	3	328
Other Operatives 89	1.22	17	56	13	11	1	664
Others Agric. 90	1.36	19	42	20	14	2	214
Others Manuf. 91	1.09	22	58	9	10	0	271
Others Construction 92	1.54	15	39	27	17	3	149
Others Transport 93	1.19	24	39	31	6	0	67
Others Comms. 94	1.50	19	25	42	10	2	82
Others Sales etc. 95	1.43	19	33	33	12	2	925
All Others 99	1.31	21	45	17	11	4	253

Table 2.17: **LOGIT Analysis: Skill Needed vs Skill Not Needed**

		Reading		Writing		Numeracy		Oral Comms.	
Variable		Coefficient	Significance	Coefficient	Significance	Coefficient	Significance	Coefficient	Significance
Occupation	(other manual jobs)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	clerical/secretarial jobs	40.52	0.00*	33.16	0.00*	8.99	0.00*	36.30	0.00*
	personal service jobs	2.62	0.00*	2.81	0.00*	2.47	0.00*	7.02	0.00*
	selling jobs	5.87	0.00*	5.09	0.00*	10.98	0.00*	13.53	0.00*
	skilled/craft manual jobs	4.92	0.00*	3.67	0.00*	3.34	0.00*	2.56	0.00*
	plant/machine operatives	2.75	0.00*	2.64	0.00*	1.51	0.00*	1.74	0.00*
Size	(0-19 employees)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	20-49 employees	1.34	0.00*	1.30	0.00*	0.90	0.01*	1.08	0.22
	50-99 employees	1.47	0.00*	1.46	0.00*	0.84	0.00*	1.13	0.10
	100-199 employees	1.56	0.00*	1.47	0.00*	0.83	0.00*	1.27	0.01*
	over 200 employees	2.64	0.00*	1.96	0.00*	1.05	0.42	2.23	0.00*
Industry	(construction)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	agriculture etc.	0.70	0.08	0.87	0.42	1.05	0.75	0.80	0.26
	energy & water supply	0.76	0.31	1.22	0.39	0.99	0.97	0.85	0.53
	extraction, metal manuff. etc.	0.66	0.02*	0.89	0.42	0.99	0.96	0.78	0.12
	metal goods, engineering	0.95	0.73	0.98	0.88	1.10	0.26	0.75	0.02*
	other manufacturing	0.39	0.00*	0.56	0.00*	0.64	0.00*	0.52	0.00*
	distribution, hotels etc.	0.64	0.00*	0.84	0.10	0.83	0.02*	1.29	0.04*
	transport and communication	1.81	0.00*	2.19	0.00*	0.75	0.00*	1.49	0.01*
	banking, finance etc.	2.20	0.00*	3.28	0.00*	0.96	0.64	2.11	0.00*
	other services	1.03	0.81	1.55	0.00*	0.63	0.00*	1.37	0.02*
Sector	(private sector)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	public sector	1.13	0.04*	1.15	0.01*	1.22	0.00*	1.24	0.01*
Labour Shortage	(no shortages)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	occasional shortages	1.27	0.00*	1.28	0.00*	1.14	0.00*	1.22	0.00*
	serious shortages	1.30	0.00*	1.40	0.00*	1.40	0.00*	1.15	0.10
Labour Mkt	(rural/village)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	large city centre	1.17	0.13	1.09	0.34	1.26	0.00*	1.20	0.14
	large city suburb	1.26	0.00*	1.18	0.02*	1.19	0.00*	1.10	0.27
	large/medium town	1.22	0.00*	1.20	0.00*	1.15	0.00*	1.16	0.05
	small town	1.12	0.12	1.06	0.35	1.09	0.09	1.12	0.16
Region	(North)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	North West	0.94	0.53	1.03	0.71	0.82	0.00*	1.05	0.66
	Yorkshire and Humberside	1.03	0.78	1.03	0.71	0.83	0.01*	1.04	0.72
	East Midlands	1.07	0.46	1.01	0.87	0.77	0.00*	0.94	0.52
	West Midlands	0.99	0.91	0.90	0.20	0.89	0.09	1.03	0.81
	East Anglia	1.12	0.32	1.00	0.98	0.88	0.12	1.13	0.34
	Greater London	0.98	0.87	0.99	0.93	0.77	0.00*	1.06	0.64
	South East	1.23	0.04*	1.28	0.00*	0.91	0.18	1.36	0.01*
	South West	1.07	0.53	1.10	0.30	0.88	0.07	1.25	0.07
	Wales	0.89	0.24	0.90	0.24	0.84	0.02*	0.97	0.81
		N = 21,876		N = 21,877		N = 21,856		N = 21,857	

* indicates statistical significance at conventional levels

Table 2.18: **LOGIT Analysis: Skill Needed to beyond Foundation vs Skill Needed to Foundation**

		Reading		Writing		Numeracy		Oral Comms.	
Variable		Coefficient	Significance	Coefficient	Significance	Coefficient	Significance	Coefficient	Significance
Occupation	(other manual jobs)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	clerical/secretarial jobs	25.45	0.00*	17.31	0.00*	3.77	0.00*	17.80	0.00*
	personal service jobs	2.45	0.00*	3.22	0.00*	1.65	0.00*	4.41	0.00*
	selling jobs	6.37	0.00*	5.00	0.00*	3.20	0.00*	10.22	0.00*
	skilled/craft manual jobs	4.99	0.00*	3.24	0.00*	1.65	0.00*	2.47	0.00*
	plant/machine operatives	1.59	0.00*	1.65	0.00*	0.62	0.00*	1.10	0.00*
Size	(0-19 employees)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	20-49 employees	0.99	0.77	1.06	0.19	1.01	0.83	0.87	0.01*
	50-99 employees	0.89	0.04*	0.92	0.15	0.94	0.29	0.73	0.00*
	100-199 employees	0.88	0.06	0.87	0.03*	0.91	0.21	0.73	0.00*
	over 200 employees	1.14	0.06	0.92	0.21	0.81	0.01*	0.85	0.02*
Industry	(construction)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	agriculture etc.	1.04	0.84	0.88	0.47	0.91	0.67	0.71	0.06
	energy & water supply	1.81	0.01*	1.81	0.00*	0.99	0.96	0.97	0.89
	extraction, metal manuff. etc.	1.18	0.22	0.75	0.04*	0.74	0.09	0.63	0.00*
	metal goods, engineering	1.23	0.03*	0.73*	0.00*	0.84	0.13	0.71	0.00*
	other manufacturing	0.75	0.00*	0.57	0.00*	0.77	0.02*	0.54	0.00*
	distribution, hotels etc.	1.02	0.83	0.84	0.06	0.64	0.00*	1.29	0.01*
	transport and communication	1.16	0.18	1.75	0.00*	0.97	0.81	1.59	0.00*
	banking, finance etc.	2.41	0.00*	2.62	0.00*	1.25	0.04*	2.00	0.00*
	other services	1.64	0.00*	1.86	0.00*	0.79	0.02*	1.56	0.00*
Sector	(private sector)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	public sector	1.21	0.00*	1.16	0.00*	1.00	0.97	1.50	0.00*
Labour Shortage	(no shortages)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	occasional shortages	1.05	0.20	1.05	0.24	1.06	0.21	1.19	0.00*
	serious shortages	1.16	0.02*	1.12	0.06	1.21	0.01*	1.28	0.00*
Labour Mkt	(rural/village)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	large city centre	1.24	0.01	1.14	0.11	1.11	0.22	1.23	0.02*
	large city suburb	1.18	0.02*	1.11	0.14	1.23	0.01*	1.00	0.96
	large/medium town	1.21	0.00*	1.04	0.46	1.07	0.37	1.10	0.14
	small town	1.16	0.02*	1.00	0.96	1.07	0.36	0.95	0.42
Region	(North)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	North West	0.98	0.84	0.82	0.01*	1.01	0.94	0.91	0.27
	Yorkshire and Humberside	0.99	0.95	0.82	0.02*	0.94	0.51	0.86	0.09
	East Midlands	0.98	0.83	0.79	0.00*	0.93	0.40	0.87	0.10
	West Midlands	0.83	0.02*	0.80	0.01*	1.05	0.58	0.87	0.10
	East Anglia	1.10	0.32	0.89	0.21	0.97	0.79	0.99	0.93
	Greater London	0.89	0.17	0.82	0.03*	0.83	0.05*	0.98	0.79
	South East	1.14	0.09	0.90	0.20	0.88	0.15	1.04	0.66
	South West	1.02	0.83	0.82	0.02*	0.87	0.16	0.92	0.39
	Wales	0.97	0.70	0.98	0.79	1.09	0.38	0.92	0.37
		N = 19.051		N = 17.965		N = 13.326		N = 19.759	

* indicates statistical significance at conventional levels

Table 2.19: **Distribution of Satisfaction with Language Skills among Employees by Occupational Groups**

Language skills among workforce	More than adequate	Fairly adequate	Only just adequate	Less than adequate	Completely inadequate
	%	%	%	%	%
All Jobs	71	17	10	1	1
Largest Group of Employees					
Clerical or Secretarial	76	13	9	1	1
Personal Service	71	17	10	1	1
Selling Jobs	75	14	8	1	1
Skilled Craft Manual	68	18	11	1	1
Operatives	63	23	11	1	1
Other Manual	66	21	10	2	2

CHAPTER 3

The Sources of Basic Skill Requirements

3.1 Introduction

This Chapter examines the sources of demand for the basic skills discussed in Chapter 2, asking what factors require employees to have the necessary skills, and how important each factor is in influencing the overall pattern of demand.

The need for basic skills derives from several different aspects of a job or workplace and these are discussed fully in *'Basic Skills and Jobs'* Volume 1. We have identified seven activities at work which can best be thought of as sources of the need for basic skills and which fall into three main groups:

Job-Related Factors:

- learning to do the job's main tasks
- actually doing the job's main tasks, and
- undertaking the more responsible aspects of the job, and/or being eligible for promotion to the next grade or level.

Workplace-Related Factors:

- understanding and complying with general workplace procedures
- health and safety considerations.

Communication Factors:

- communicating with colleagues, supervisors or managers
- communicating with customers.

Our respondents were asked how important each basic skill was for each of the seven activities, and were asked to record these on a five point scale ranging from being 'of no importance' to 'essential'. It is possible of course that one or more of the seven activities is not actually relevant to the job in question; not all jobs require communication with customers, for example. Respondents were also given the opportunity to answer 'not relevant for these jobs' in such cases. The results of their weightings can then be used to see which factors are most important as a source for basic skill demands and how these factors vary by occupational group.

3.2 Sources of Demand for Basic Skills – Overview Analysis

'Basic Skills and Jobs' Volume 1, looked at the sources of demand for basic skills as a whole. In this chapter we will concentrate on each of the four basic skills separately, and on the differences between them.

The results are presented in a very simple way. If we view the weightings given to each category as a score, then we can see how important, on average, each basic skill is for each of the seven aspects of the job we have described. We have used a score of 0 for 'of no importance', ranging up to 4 for 'essential'. These averages are shown in Chart 3.1 for the sources of reading skills, and then subsequently in Charts 3.2, 3.3 and 3.4 for writing, numeracy and oral communications respectively.

The charts show that:

- all four basic skills are of at least some importance for all the work aspects identified, although reading and oral communications are more important than writing and numeracy
- undertaking the more responsible aspects of the job and/or qualifying for promotion is the most important source of demand for each of the four basic skills. This suggests that higher levels of basic skills are needed for progression through the internal labour market than for recruitment from the external labour market, and
- communicating with colleagues and managers, and learning and doing the main tasks of the job are very important sources of demand for oral communication skills. The two workplace-related factors, understanding and complying with health and safety and general workplace procedures, are very important sources of demand for reading skills.

Of course, the crude averages shown in these charts may help us to distinguish more important from less important sources of demand for basic skills, but in reality there is considerable variation around these averages. The most important pole around which they vary is the job in question, and we now go on to consider how important each category of source is, by occupational group.

Chart 3.1: **Sources of Demand for Reading Skills**

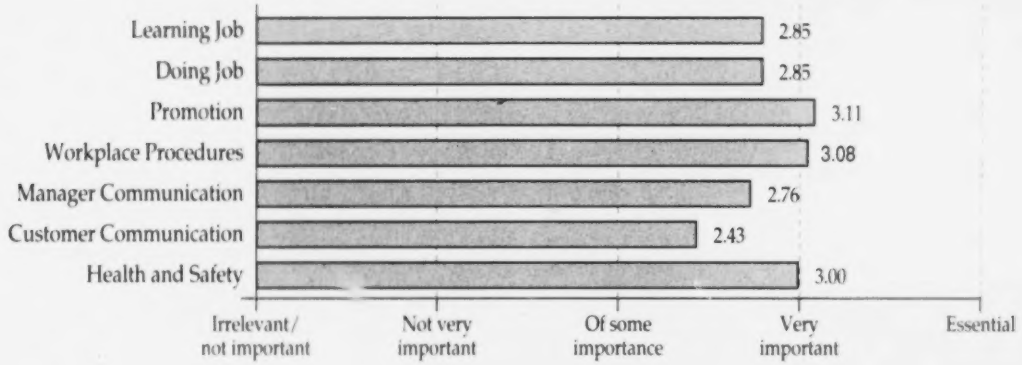


Chart 3.2: **Sources of Demand for Writing Skills**

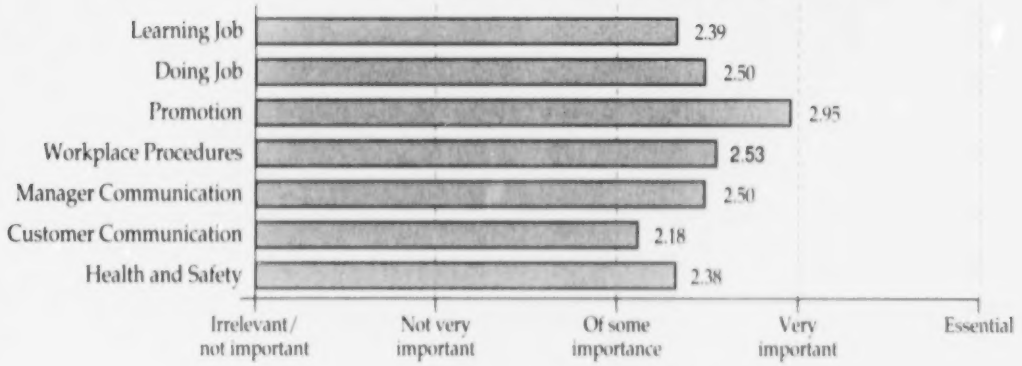


Chart 3.3: **Sources of Demand for Numeracy Skills**

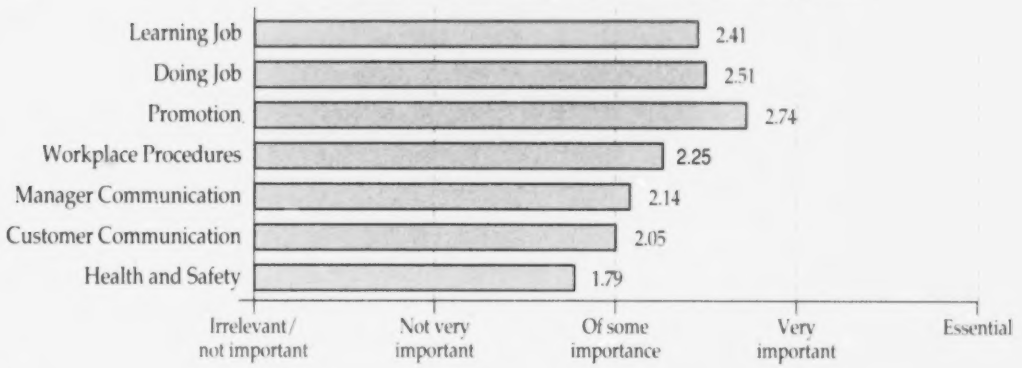
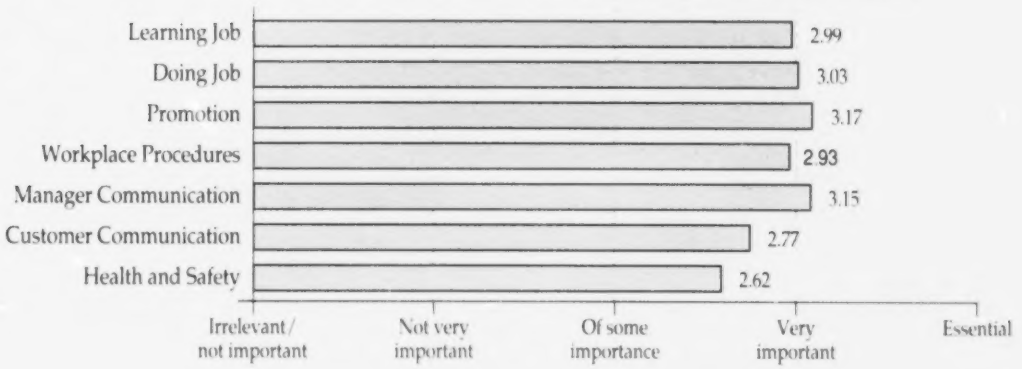


Chart 3.4: **Sources of Demand for Oral Communication Skills**



3.3 Occupational Variation in Sources of Need for Basic Skills

Table 3.1 again presents the average score for each of the seven categories of source of basic skill requirement, but now broken down by our six broad occupational categories. It shows for each basic skill and each job how important the basic skill is for learning the job, doing the job, etc. The scale is shown again at the bottom of the Table.

From it we can see that:

- for Clerical/Secretarial Jobs, the three communication skills are very important for all the job aspects except health and safety considerations. All three are particularly important for doing the main tasks of the job, those involving more responsibility, and becoming eligible for promotion. In addition, oral communication skills are particularly important for communicating with both colleagues and customers. Numeracy skills are less important than the communication skills, never being very important for any aspects, although again they are most important for doing the job's main tasks and for promotion

- oral communication skills are very important for Personal Service Jobs for all the work aspects, and they are particularly important for customer communication. Reading skills follow next in importance and are very important for understanding workplace procedures and health and safety regulations. Writing and numeracy are less important than the other two skills, and the most important source of demand for them is qualifying for promotion

- numeracy and oral communication skills are more important for Selling Jobs than for other occupations. Numeracy skills are very important for customer communication and the three job-related factors, learning and doing the job's main tasks and promotion. Oral communications are very important for all job aspects except health and safety regulations, and are widely considered essential for communicating with customers. Reading skills are also very important in Selling Jobs for most of the job aspects, and writing is very important for promotion

- in Skilled/Craft Manual Jobs reading is very important for promotion and the two workplace-related factors. Oral communications are very important for promotion and communicating with colleagues. While numeracy skills are generally less important than the other three basic skills (see Chart 3.3 on previous page), in this occupational group they are relatively more important than in the other groups, with the exception of Selling Jobs, particularly for promotion and health and safety considerations

- for Plant, Vehicle and Machine Operatives, basic skills are generally of some importance, except for communicating with customers where they tend to be of little importance. Demand for reading and oral communications among Plant and Machine Operatives is similar to that among Skilled/Craft Manual Jobs, albeit at a lower level, and writing and numeracy are important for promotion; finally

- Other Manual Jobs show a similar pattern of demand to Plant, Vehicle and Machine Operatives, with basic skills being less important for all work aspects except communicating with customers.

3.4 Variation between Employers in Sources of Need for Basic Skills

Having looked at occupational variation in sources of basic skills need we now examine the extent to which sources of demand for basic skills vary by employer characteristics, irrespective of occupation. We repeat a logit analysis as described in Chapter 2 section 2.4. As before, the reference category is an Other Manual Job in a small, private sector construction firm, in a rural labour market in the North, and facing no labour shortages.

In Table 3.2 we present the result of logit analysis. Here we are considering whether each of our seven sources of demand for basic skill is independently influenced by occupation, establishment size, sector etc. For convenience, the analysis turns on whether each factor is regarded as very important or essential, or merely of some importance, not very important, or not important at all. The results confirm that occupation is the most important pole around which sources of basic skill demand vary, and show that some of the other variables are also a significant influence. In particular the Table shows that:

- the likelihood of these factors being a very important source of demand for basic skills is lowest for Other Manual Jobs and generally increases as we go up the occupational spectrum, although the odds are higher for Skilled/Craft Manual Jobs than for Personal Service Jobs. Health and safety considerations are an exception, however, and the odds of this factor being a very important source of basic skill need are highest for Personal Service and Skilled/Craft Manual Jobs

- size is a significant influence on three of the factors identified. The odds of promotion being a very important source increase with employment size, and they are almost 3.5 times higher in a firm with over 200 employees, compared with a firm with less than 20 employees. The likelihood of customer communication being very important decreases with size, as does the likelihood of health and safety considerations being very important, although only for intermediate sized firms (i.e with between 20 and 200 employees)

Table 3.1: **Sources of Requirements for Basic Skills by Occupational Groups**

Reading Skills Mean Score	Learning the job	Main tasks	Prom-otion	W-place procs.	Comm. colls.	Comm. custs.	Health & safety
All Jobs	2.85	2.85	3.11	3.08	2.75	2.42	3.00
Largest group of employees							
Clerical or secretarial	3.48	3.63	3.57	3.44	3.35	3.38	2.92
Personal service	2.74	2.57	2.91	3.03	2.69	2.63	3.19
Selling jobs	3.12	3.12	3.32	3.18	2.90	3.17	2.98
Skilled craft manual	2.78	2.74	3.06	3.01	2.66	1.97	3.05
Operatives	2.43	2.46	2.86	2.90	2.30	1.35	2.94
Other manual	2.02	2.00	2.55	2.61	2.14	1.58	2.83

Writing Skills Mean Score	Learning the job	Main tasks	Prom-otion	W-place procs.	Comm. colls.	Comm. custs.	Health & safety
All Jobs	2.39	2.50	2.95	2.52	2.49	2.18	2.38
Largest group of employees							
Clerical or secretarial	3.18	3.46	3.46	3.10	3.20	3.27	2.57
Personal service	2.32	2.34	2.82	2.52	2.48	2.27	2.60
Selling jobs	2.70	2.84	3.21	2.69	2.67	2.78	2.40
Skilled craft manual	2.20	2.14	2.79	2.34	2.29	1.75	2.34
Operatives	1.83	2.03	2.67	2.17	2.01	1.13	2.11
Other manual	1.48	1.53	2.38	1.85	1.76	1.25	1.99

Numeracy Skills Mean Score	Learning the job	Main tasks	Prom-otion	W-place procs.	Comm. colls.	Comm. custs.	Health & safety
All Jobs	2.41	2.50	2.74	2.25	2.14	2.04	1.79
Largest group of employees							
Clerical or secretarial	2.72	2.85	2.90	2.47	2.46	2.67	1.71
Personal service	2.03	2.07	2.39	2.00	1.84	2.10	1.77
Selling jobs	3.10	3.23	3.29	2.81	2.64	3.29	1.99
Skilled craft manual	2.57	2.62	2.87	2.35	2.24	1.70	2.03
Operatives	2.14	2.28	2.65	2.05	1.86	1.16	1.63
Other manual	1.65	1.74	2.26	1.67	1.53	1.23	1.48

Oral Comm Skills Mean Score	Learning the job	Main tasks	Prom-otion	W-place procs.	Comm. colls.	Comm. custs.	Health & safety
All Jobs	2.99	3.03	3.17	2.93	3.15	2.77	2.62
Largest group of employees							
Clerical or secretarial	3.33	3.50	3.47	3.17	3.47	3.57	2.46
Personal service	3.21	3.31	3.23	3.18	3.33	3.47	3.02
Selling jobs	3.35	3.52	3.51	3.15	3.39	3.72	2.58
Skilled craft manual	2.76	2.70	3.03	2.75	2.96	2.14	2.60
Operatives	2.64	2.55	2.89	2.63	2.82	1.46	2.52
Other manual	2.47	2.36	2.76	2.54	2.71	1.97	2.51

Table 3.2: **Logit Analysis: Very Important Source vs Not Very Important Source**

		Learning The Job		Doing The Job		Promotion	
Variable		**Coefficient**	**Significance**	**Coefficient**	**Significance**	**Coefficient**	**Significance**
Occupation	(other manual jobs)	(1.00)	—	(1.00)	—	(1.00)	—
	clerical/secretarial jobs	11.64	0.00*	24.21	0.00*	5.78	0.00*
	personal service jobs	2.95	0.00*	2.75	0.00*	1.96	0.00*
	selling jobs	8.64	0.00*	9.85	0.00*	4.84	0.00*
	skilled manual jobs	3.67	0.00*	3.06	0.00*	1.98	0.00*
	plant/machine operatives	1.89	0.00*	1.91	0.00*	1.47	0.00*
Size	(0-19 employees)	(1.00)	—	(1.00)	—	(1.00)	—
	20-49 employees	1.00	0.97	1.04	0.36	1.48	0.00*
	50-99 employees	0.93	0.14	1.01	0.82	1.81	0.00*
	100-199 employees	1.01	0.90	0.92	0.16	2.64	0.00*
	over 200 employees	1.21	0.00*	1.11	0.08	3.43	0.00*
Industry	(construction)	(1.00)	—	(1.00)	—	(1.00)	—
	agriculture etc.	0.93	0.63	0.92	0.60	0.79	0.12
	energy & water supply	1.01	0.97	1.04	0.85	1.18	0.41
	extraction, metal manuff. etc.	0.97	0.80	1.20	0.13	1.09	0.50
	metal goods, engineering	1.08	0.36	1.18	0.06	1.26	0.01*
	other manufacturing	0.70	0.00*	0.87	0.08	0.88	0.13
	distribution, hotels etc.	1.10	0.21	1.24	0.01*	1.17	0.07
	transport and communication	1.64	0.00*	1.98	0.00*	0.76	0.01*
	banking, finance etc.	1.45	0.00*	1.63	0.00*	1.36	0.00*
	other services	1.11	0.20	1.10	0.24	0.96	0.66
Sector	(private sector)	(1.00)	—	(1.00)	—	(1.00)	—
	public sector	1.31	0.00*	1.26	0.00*	1.35	0.00*
Labour Shortage	(no shortages)	(1.00)	—	(1.00)	—	(1.00)	—
	occasional shortages	1.14	0.00*	1.12	0.00*	1.32	0.00*
	serious shortages	1.48	0.00*	1.45	0.00*	1.59	0.00*
Labour Mkt	(rural/village)	(1.00)	—	(1.00)	—	(1.00)	—
	large city centre	1.27	0.00*	1.24	0.00*	1.40	0.00*
	large city suburb	1.31	0.00*	1.32	0.00*	1.42	0.00*
	large/medium town	1.36	0.00*	1.29	0.00*	1.35	0.00*
	small town	1.23	0.00*	1.17	0.00*	1.25	0.00*
Region	(North)	(1.00)	—	(1.00)	—	(1.00)	—
	North West	0.99	0.86	0.96	0.57	1.05	0.44
	Yorkshire and Humberside	0.93	0.31	0.92	0.24	0.92	0.27
	East Midlands	0.90	0.11	0.92	0.23	1.02	0.76
	West Midlands	0.89	0.09	0.91	0.17	0.91	0.19
	East Anglia	1.03	0.69	1.05	0.53	1.24	0.01*
	Greater London	0.87	0.05	0.95	0.52	0.96	0.60
	South East	1.03	0.64	1.10	0.18	1.09	0.22
	South West	0.87	0.06	0.91	0.19	0.94	0.40
	Wales	0.91	0.22	0.97	0.73	1.04	0.64
		N = 22,028					

* indicates statistical significance at conventional levels

Table 3.2 (cont): **Logit Analysis: Very Important Source vs Not Very Important Source**

		Workplace Procedures		Comm. with Colleagues		Comm. with Customers		Health and Safety	
Variable		Coefficient	Significance	Coefficient	Significance	Coefficient	Significance	Coefficient	Significance
Occupation	(other manual jobs)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	clerical/secretarial jobs	5.44	0.00*	8.08	0.00*	12.80	0.00*	1.44	0.00*
	personal service jobs	2.37	0.00*	2.44	0.00*	2.75	0.00*	1.80	0.00*
	selling jobs	4.39	0.00*	4.60	0.00*	11.00	0.00*	1.64	0.00*
	skilled manual jobs	2.36	0.00*	2.48	0.00*	2.27	0.00*	1.80	0.00*
	plant/machine operatives	1.62	0.00*	1.48	0.00*	1.08	0.00*	1.25	0.00*
Size	(0-19 employees)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	20-49 employees	1.03	0.43	1.04	0.27	0.78	0.00*	0.92	0.02*
	50-99 employees	1.03	0.50	1.04	0.34	0.63	0.00*	0.89	0.01*
	100-199 employees	0.97	0.60	0.94	0.23	0.57	0.00*	0.85	0.00*
	over 200 employees	1.05	0.37	1.00	0.94	0.61	0.00*	0.95	0.33
Industry	(construction)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	agriculture etc.	0.82	0.19	0.64	0.00*	0.52	0.00*	0.75	0.04*
	energy & water supply	0.93	0.69	0.99	0.95	0.69	0.05*	0.92	0.62
	extraction, metal manuff. etc.	1.13	0.29	0.82	0.08	0.44	0.00*	0.80	0.04*
	metal goods, engineering	1.05	0.58	0.82	0.02*	0.52	0.00*	0.66	0.00*
	other manufacturing	0.82	0.01*	0.64	0.00*	0.40	0.00*	0.52	0.00*
	distribution, hotels etc.	1.05	0.51	0.79	0.00*	1.13	0.14	0.78	0.00*
	transport and communication	1.24	0.03*	0.99	0.89	2.03	0.00*	0.71	0.00*
	banking, finance etc.	1.27	0.01	1.14	0.15	1.36	0.00*	0.64	0.00*
	other services	1.07	0.43	0.89	0.14	0.99	0.87	0.87	0.07
Sector	(private sector)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	public sector	1.38	0.00*	1.26	0.00*	1.26	0.00*	1.34	0.00*
Labour Shortage	(no shortages)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	occasional shortages	1.09	0.01*	1.12	0.00*	1.11	0.00*	1.01	0.75
	serious shortages	1.43	0.00*	1.47	0.00*	1.47	0.00*	1.22	0.00*
Labour Mkt	(rural/village)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	large city centre	1.05	0.43	1.12	0.08	1.24	0.00*	0.88	0.04*
	large city suburb	1.12	0.04*	1.19	0.00*	1.14	0.03*	0.98	0.66
	large/medium town	1.22	0.00*	1.22	0.00*	1.22	0.00*	1.02	0.56
	small town	1.11	0.04*	1.11	0.05*	1.12	0.05*	0.98	0.61
Region	(North)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	North West	0.96	0.53	1.00	0.95	0.91	0.20	1.00	0.96
	Yorkshire and Humberside	0.89	0.11	0.82	0.01*	0.79	0.00*	0.91	0.16
	East Midlands	0.86	0.02*	0.87	0.04*	0.83	0.01*	0.91	0.16
	West Midlands	0.83	0.00*	0.89	0.09	0.91	0.20	0.88	0.05
	East Anglia	0.91	0.22	0.99	0.88	1.01	0.91	0.95	0.49
	Greater London	0.80	0.00*	0.84	0.01*	0.86	0.04*	0.92	0.21
	South East	0.89	0.06	0.95	0.40	0.97	0.65	0.92	0.16
	South West	0.80	0.00*	0.86	0.04*	0.82	0.01*	0.84	0.01*
	Wales	0.92	0.26	0.95	0.53	0.91	0.25	1.03	0.71
		N = 22,028							

* indicates statistical significance at conventional levels

- two significant patterns of variation by industrial sector emerge. Compared with a firm in the construction sector, communicating with customers is more likely to be very important among service sector establishments and less likely to be very important among production sector establishments, and health and safety considerations are less likely to be a very important source of demand in all sectors except energy and water supply (SIC 1)

- the odds of all the factors being very important sources of demand for basic skills are about 1.3 times higher for a public sector firm compared with a private sector firm

- there is significant variation by labour shortage, and the likelihood of the factors being very important sources of demand for basic skills rises with the incidence of labour shortage

- the labour market in which the firm operates is a significant influence on the importance of the sources of basic skill need. The three job-related factors are most likely to be very important sources in the urban areas, large cities and towns, and are more likely to be very important in small towns compared with rural areas. The odds of communicating with customers being very important are highest in large city centres and large towns, while the odds of health and safety consideration being very important are lowest among firms in large city centres, and

- there is no consistent variation by region across all the factors, although the odds of communicating with colleagues and customer being very important are lower in Yorkshire and Humberside, the East Midlands, London, and the South West, compared with the North, and the odds of the workplace and health and safety procedures being very important are also lower in the South West compared with the North.

Summary

In this discussion on the sources of demand for basic skills at work we have shown that the pattern of demand for basic skills is clearly a composite one, in which all the seven factors we have considered have some importance, varying in their contribution from job to job, skill to skill, and workplace to workplace.

It is apparent that basic skills are of at least some importance for all the work aspects identified, although reading and oral communications are more important than writing and numeracy. However, the most important source of demand for all four basic skills is qualifying for promotion and/or undertaking the more responsible aspects of the job.

There is considerable inter-occupational variation in the importance of the factors as sources of demand for basic skills, although they are generally more important in the non-manual occupations than in the manual ones. The importance attached to these aspects also varies by workplace characteristics, particularly ownership, extent of labour shortages, and location.

Recent Changes in the Demand for Basic Skills at the Workplace

We sought information from our respondents on the ways in which the demand for basic skills are changing. To determine this we asked employers how demand had changed in the recent past. This approach relies on the assumption that the direction of change will be the same in the future as it has been in the past, but on balance this is a safer basis for predicting the future than one based on employer expectations.

4.1 Changes in the Demand for Basic Skills

We asked employers whether the importance of each of our four basic skills had changed over the last five years, and asked them to rank the change on a five point scale ranging from 'Much More Important' to 'Much Less Important'.

The results presented in the report *'Basic Skills and Jobs'* Volume 1, looking at all jobs, showed that overall demand for basic skills has been rising, particularly for oral communications. However, there is considerable variation around this average, and about half the sample reported no change in the importance of basic skills for their jobs.

In the rest of this chapter we consider the variation in the changes in demand for basic skills between the different occupations (again presenting an occupational Sub-group analysis), and also the variation by employer and workplace characteristics.

4.2 Occupational Variation in Changes in Demand

We can break the average down by looking at the proportions of employers who fall into each of the categories of change on our scale, and we can also show how the different occupational groups have fared. We have combined the (very low) proportions of respondents who report that basic skills have become slightly or much less important into a single 'less important' category. Table 4.1 shows the distribution of change in overall basic skill requirements, broken down firstly by our six occupational categories, and then by the finer occupational groups. It shows that:

- the importance of basic skills is rising; there are very few employers, only one per cent, in any of our occupational groups which show a reduction in the demand for basic skills
- however, just over half of all our employers report that there has been no change in the demand for basic skills. This proportion is highest for Clerical/Secretarial and Other Manual Jobs, with almost one in six employers in these occupational groups experiencing no change. The lowest proportion of employers reporting no change in basic skill demand is found among Plant, Vehicle and Machine Operatives, and
- Personal Service Jobs and Plant, Vehicle and Machine Operatives show the highest proportions of employers for whom basic skills have become much more important during the past five years.

Having considered basic skills as a whole we now go on to look at occupational variation in the changes in demand for the four individual skills. Table 4.2 shows the distribution of change in basic skill requirement for each of our skills, by our six occupational categories. It shows that:

- demand for reading and writing has increased most in Personal Service and Plant, Vehicle and Machine Operative Jobs. Around one fifth of these jobs report much more important reading and writing skills and less than half report no change, although Skilled Manual Jobs have experienced a similar increase in demand for reading to Personal Service Jobs
- increasing demand for numeracy skills is most marked among Selling Jobs and Skilled and Semi-skilled Manual Jobs, although Selling Jobs also show a relatively high proportion reporting that numeracy skills have become less important, and
- the non-manual occupations report the largest increases in demand for oral communication skills. Oral communications have become much more important in over one third of Personal Service and Selling Jobs.

4.3 Employer Variation in Changing Demand

Following the pattern of the previous chapters, we now turn to consider to what extent different types of employer and different labour market conditions might have resulted in different changes in need for basic skills. As before, we undertake a logit analysis to determine the significant influences on changing basic skill demand, but with an additional variable showing recent changes in employment.

Table 4.1: **Recent Changes in Requirements for all Skills by Occupational Groups**

Recent change in need for all skills	Much more important	Slightly more important	No change	Less important
	%	%	%	%
All Jobs	12	34	53	1
Clerical or Secretarial	10	32	58	1
Personal Service	15	33	51	1
Selling Jobs	12	33	54	1
Skilled Craft Manual	12	36	51	1
Operatives	14	40	46	1
Other Manual	9	32	58	0
Pub. Sec. Clericals 40	6	28	63	2
Numerical Clerks 41	6	26	68	1
Filing Clerks 42	10	32	57	0
Other Clerks 43	11	34	54	1
Stores Clerks 44	12	32	56	0
Secretaries/WP 45	9	31	59	1
Receptionists etc. 46	15	33	52	0
Other Clerical/Sec 49	13	28	57	2
Construction Trades 50	10	35	54	1
Machining 51	9	37	53	0
Electrical/Electronic Trades 52	14	42	43	1
Metal Forming Trades 53	9	34	57	1
Vehicle Trades 54	21	46	33	1
Textile Trades 55	6	25	68	1
Printing Trades 56	10	36	54	1
Woodworking Trades 57	9	32	59	0
Food Prep. Trades 58	9	40	50	1
Other Trades 59	10	33	57	1
NCOs etc. 60	25	50	25	0
Security Occupations 61	17	33	50	0
Catering Occupations 62	7	31	62	0
Travel Rel. Occupations 63	0	31	69	0
Health Occupations 64	21	35	44	0
Childcare Occupations 65	12	33	54	0
Hairdressing etc. 66	12	28	57	3
Domestic Staff 67	6	32	62	0
Other Personal Services 69	14	35	50	0
Buyer etc. 70	13	42	46	0
Sales Reps 71	15	34	50	0
Sales Assistants 72	11	35	53	1
Salespersons 73	19	24	57	0
Other Sales Occupations 79	12	27	61	1
FDT Operatives 80	16	41	42	1
Textiles Ops 81	8	36	56	0
Chemicals etc. Ops 82	14	42	43	1
Metal Making Ops 83	16	40	44	0
Metal Working Ops 84	12	37	50	1
Assemblers 85	11	40	49	1
Other Process Ops 86	12	40	47	0
Road Transport Ops 87	12	35	52	1
Other Transport Ops 88	14	33	52	1
Other Operatives 89	12	39	49	1
Others Agric. 90	12	37	50	1
Others Manuf. 91	14	40	45	1
Others Construction 92	10	39	51	1
Others Transport 93	9	29	62	0
Others Comms. 94	14	35	50	1
Others Sales etc. 95	9	28	62	1
All Others 99	8	37	55	0

Table 4.2: **Recent Changes in Basic Skill Requirements by Occupational Groups**

Recent change in need for reading skills	Much more important	Slightly more important	No change	Less important
	%	%	%	%
All Jobs	16	29	52	1
Clerical or Secretarial	13	23	62	1
Personal Service	19	27	50	1
Selling Jobs	15	26	56	1
Skilled Craft Manual	17	33	49	1
Operatives	20	35	43	1
Other Manual	13	30	54	0

Recent change in need for writing skills	Much more important	Slightly more important	No change	Less important
	%	%	%	%
All Jobs	15	29	53	1
Clerical or Secretarial	13	26	57	2
Personal Service	21	25	50	1
Selling Jobs	14	26	56	2
Skilled Craft Manual	14	31	53	1
Operatives	16	36	46	1
Other Manual	11	28	58	1

Recent change in need for numeracy skills	Much more important	Slightly more important	No change	Less important
	%	%	%	%
All Jobs	17	29	50	2
Clerical or Secretarial	16	26	54	3
Personal Service	16	25	54	2
Selling Jobs	22	28	45	3
Skilled Craft Manual	19	32	47	1
Operatives	21	35	42	1
Other Manual	13	28	56	1

Recent change in need for oral comm. skills	Much more important	Slightly more important	No change	Less important
	%	%	%	%
All Jobs	27	27	44	1
Clerical or Secretarial	29	26	43	0
Personal Service	34	22	41	1
Selling Jobs	34	23	40	0
Skilled Craft Manual	22	29	48	1
Operatives	22	33	43	1
Other Manual	19	25	52	1

The procedures adopted are discussed in Chapter 2, section 2.4. The results are shown in Table 4.3 for all skills, and in Table 4.4 for each of the individual skills.

Table 4.3 shows the result of a logit analysis contrasting the cases where basic skills have become more important compared with those observing no change or a reduction. The reference category is a small, private sector construction firm in a rural area in the North, employing Other Manual workers, with no recent experience of labour shortages and whose employment levels have decreased during the last three years. Table 4.2 shows that:

- occupation is a significant influence on increasing demand for basic skills. Compared with a firm with Other Manual Jobs, the odds of basic skills having become more important are 1.7 times higher for a firm with Plant, Vehicle and Machine Operatives, and around 1.3 times higher for firms with Personal Service, Selling or Skilled/Craft Manual Jobs. However, the likelihood of basic skills as a whole becoming more important in Clerical/Secretarial Jobs is the same as in Other Manual Jobs
- the likelihood of increasing demand for basic skills rises with employment levels, and size is a very significant influence
- the odds of basic skills overall being more important are significantly higher in agriculture compared with construction, although the influence of being in the distribution and hotels, banking and finance, other services, or other manufacturing sector is only just outside the bounds of statistical significance
- the ownership of an establishment is a significant influence on changing basic skill demand, and the odds of basic skills having become more important are 1.2 times higher for a public sector firm, compared with a private sector one
- establishments with experience of labour shortages are significantly more likely to have increased demand for basic skills, and the odds of basic skills being more important increases with the incidence of labour shortage, and
- compared with employers in rural areas, those in large city centres are less likely to have increased their demand for basic skills
- there is no significant variation in changes in demand for basic skills by region, and
- recent employment changes are a significant influence on changing basic skill demand, and compared with an establishment that has reduced employment levels, the odds of basic skills having become more important are higher for a firm that has increased employment and lower for one that has seen no change in employment levels.

Table 4.3: **Logit Analysis: Skill Change – Less Important vs Skill Change – More Important**

	All Skills	
Variable	**Coefficient**	**Significance**
Occupation (other manual jobs)	(1.00)	—
clerical/secretarial jobs	1.01	0.92
personal service jobs	1.25	0.00*
selling jobs	1.23	0.00*
skilled manual jobs	1.32	0.00*
plant/machine operatives	1.66	0.00*
Size (0-19 employees)	(1.00)	—
20-49 employees	1.17	0.00*
50-99 employees	1.34	0.00*
100-199 employees	1.49	0.00*
over 200 employees	1.63	0.00*
Industry (construction)	(1.00)	—
agriculture etc.	1.38	0.03*
energy & water supply	1.14	0.43
extraction, metal manuff. etc.	1.15	0.22
metal goods, engineering	0.99	0.86
other manufacturing	0.88	0.10
distribution, hotels etc.	1.15	0.08
transport and communication	0.97	0.79
banking, finance etc.	0.87	0.11
other services	1.17	0.06
Sector (private sector)	(1.00)	—
public sector	1.24	0.00*
Labour Shortage (no shortages)	(1.00)	—
occasional shortages	1.38	0.00*
serious shortages	1.41	0.00*
Labour Mkt (rural/village)	(1.00)	—
large city centre	0.88	0.04*
large city suburb	1.00	0.96
large/medium town	0.98	0.65
small town	1.03	0.58
Region (North)	(1.00)	—
North West	1.04	0.57
Yorkshire and Humberside	1.06	0.36
East Midlands	1.06	0.38
West Midlands	0.99	0.92
East Anglia	1.08	0.31
Greater London	0.97	0.62
South East	1.05	0.48
South West	0.93	0.29
Wales	0.97	0.72
Recent Emp Change (shrinking)	(1.00)	—
expanding	1.12	0.00*
stayed the same	0.75	0.00*
	N = 20,902	

* indicates statistical significance at conventional levels

Table 4.4 shows the results of logit analyses for each of the four skills, again contrasting the cases where basic skills have become more important compared with those observing no change or a reduction. The same general patterns are observed as in the previous analysis, although different occupational and sectoral variations are observed in the individual skills. In particular the Table shows that:

- compared with Other Manual Jobs, the odds of reading skills having become more important are lower for Clerical/Secretarial Jobs, while the odds of numeracy and oral communications having become more important are higher for Clerical/Secretarial Jobs, and

- writing and oral communication skills are less likely to have become more important in other manufacturing firms compared with construction firms. Service sector establishment are generally more likely to have seen an increase in demand for oral communications compared with construction firms, and banking and finance firms are less likely to report more important numeracy skills than are construction firms.

4.4 Causes of Increased Demand for Basic Skills

As we have seen, about half of our respondents had not noticed any change in their requirements for basic skills during the last five years (rather less for oral communications). If we are to consider the causes of change, we need to exclude them from our consideration and just concentrate on those who had noted some.

So, in the rest of this chapter, we will be concerned solely with those employers who thought that basic skills had become more important during the last five years. We asked them to choose from a list the factor that had been most important in causing this increase. The factors that were listed were:

- technological change in production systems

- technological change in communication or information systems

- change in work organisation

- health and safety regulations

- production quality standards, or

- other factors.

'Basic Skills and Jobs' Volume 1 looked at the proportions of respondents citing each factor as the main one causing their increased requirement for basic skills, using a combined basic skills index. The results showed that changes in work organisation is the most frequently cited reason for the increase in need for basic skills overall, closely followed by developments in information technology relating to communication systems. We now go on to look at each of the four individual skills.

Chart 4.1 shows the proportion of respondents citing each factor as the one causing their increased need for reading skills, and then subsequently in Charts 4.2, 4.3 and 4.4 for writing, numeracy and oral communications respectively. The Charts show that:

- the most frequently cited reason for the increase in need for basic skills is technological changes in information and communication systems and changes in the organisation of work, and

- changing production quality standards is reported by just under one fifth of employers for each of the four skills, whilst a technological change in production systems is particularly important for increasing demand for reading and numeracy skills. There is rather more variation in the proportion citing health and safety regulations as the reason for increased basic skill demand, ranging from 3 per cent of employers for numeracy skills to more than one in ten for reading skills.

We now go on to consider the inter-occupational and inter-firm variation in the incidence of these factors, using a combined skills index. Table 4.5 shows the proportions citing each factor as the main one causing increased demand for basic skills overall, broken down by our six occupational groups, and the activity in which the establishment is engaged. The Table shows that:

- the most frequently cited reason for increased basic skill need among Clerical/Secretarial and Selling Jobs is technological change in communication systems, and the most frequently cited reason among Personal Service Jobs is changes in the organisation of work

- the most commonly reported reasons among the manual occupations are changes in work organisation and production quality standards, and among Skilled/Craft Manual Jobs, technological changes in production and communication systems

- health and safety regulations are an important cause of increased basic skill demand among agricultural establishments, although the most commonly cited reason among these firms is technological change in production systems. Changes in production quality standards are the most common reason among the manufacturing sectors (SIC 2-4), and

- technological changes in communication and information systems, and changing work organisation are the most frequently reported reasons in the energy and water supply sector, the construction sector, and the service sectors (SIC 6-9).

Table 4.4: **LOGIT Analysis: Skill Change – Less Important vs Skill Change – More Important**

		Reading		Writing		Numeracy		Oral Comms.	
Variable		Coefficient	Significance	Coefficient	Significance	Coefficient	Significance	Coefficient	Significance
Occupation	(other manual jobs)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	clerical/secretarial jobs	0.73	0.00*	0.97	0.55	1.14	0.02*	1.49	0.00*
	personal service jobs	1.08	0.23	1.24	0.00*	1.05	0.40	1.54	0.00*
	selling jobs	0.98	0.76	1.08	0.25	1.33	0.00*	1.73	0.00*
	skilled manual jobs	1.30	0.00*	1.25	0.00*	1.34	0.00*	1.39	0.00*
	plant/machine operatives	1.66	0.00*	1.71	0.00*	1.65	0.00*	1.67	0.00*
Size	(0-19 employees)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	20-49 employees	1.20	0.00*	1.21	0.00*	1.14	0.00*	1.21	0.00*
	50-99 employees	1.33	0.00*	1.42	0.00*	1.24	0.00*	1.42	0.00*
	100-199 employees	1.53	0.00*	1.48	0.00*	1.39	0.00*	1.47	0.00*
	over 200 employees	1.62	0.00*	1.59	0.00*	1.53	0.00*	1.88	0.00*
Industry	(construction)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	agriculture etc.	1.30	0.08	1.22	0.18	1.49	0.01*	1.31	0.06
	energy & water supply	1.02	0.90	1.28	0.14	1.01	0.94	1.16	0.38
	extraction, metal manuff. etc.	1.14	0.24	1.16	0.19	1.20	0.10	1.16	0.19
	metal goods, engineering	1.06	0.47	0.93	0.40	1.13	0.14	0.92	0.28
	other manufacturing	0.87	0.07	0.81	0.01*	0.98	0.76	0.85	0.05*
	distribution, hotels etc.	1.10	0.23	0.97	0.66	1.18	0.03*	1.32	0.00*
	transport and communication	0.92	0.38	0.87	0.16	0.91	0.32	1.15	0.15
	banking, finance etc.	0.84	0.05	0.87	0.10	0.70	0.00*	1.17	0.07
	other services	1.22	0.02*	1.13	0.13	0.91	0.26	1.26	0.00*
Sector	(private sector)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	public sector	1.23	0.00*	1.23	0.00*	1.24	0.00*	1.27	0.00*
Labour Shortage	(no shortages)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	occasional shortages	1.31	0.00*	1.36	0.00*	1.32	0.00*	1.32	0.00*
	serious shortages	1.34	0.00*	1.36	0.00*	1.39	0.00*	1.40	0.00*
Labour Mkt	(rural/village)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	large city centre	0.84	0.01*	0.86	0.02*	0.92	0.22	0.96	0.49
	large city suburb	0.95	0.33	0.97	0.58	1.03	0.54	1.05	0.37
	large/medium town	0.92	0.07	0.95	0.30	1.01	0.78	1.01	0.78
	small town	0.97	0.58	0.99	0.85	1.02	0.73	1.04	0.44
Region	(North)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	North West	1.04	0.53	0.99	0.93	0.90	0.11	1.06	0.38
	Yorkshire and Humberside	1.05	0.45	1.09	0.19	0.91	0.17	1.08	0.26
	East Midlands	1.09	0.21	1.06	0.37	0.98	0.81	1.05	0.47
	West Midlands	1.00	0.97	0.95	0.44	0.88	0.05*	0.98	0.79
	East Anglia	1.12	0.13	0.98	0.83	0.99	0.88	1.10	0.21
	Greater London	0.94	0.41	1.01	0.87	0.84	0.01*	0.93	0.31
	South East	1.07	0.31	1.06	0.37	0.93	0.28	1.01	0.83
	South West	0.93	0.32	0.97	0.63	0.87	0.04*	0.96	0.55
	Wales	0.98	0.80	0.96	0.53	0.93	0.30	1.03	0.69
Recent Emp Change	(shrinking)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	expanding	1.07	0.05*	1.11	0.00*	1.04	0.22	1.08	0.03*
	stayed the same	0.77	0.00*	0.76	0.00*	0.73	0.00*	0.73	0.00*
		N = 20.867		N = 20.844		N = 20.794		N = 20.752	

* indicates statistical significance at conventional levels

Chart 4.1: **Proportion of respondents citing factors causing an increased need for reading skills**

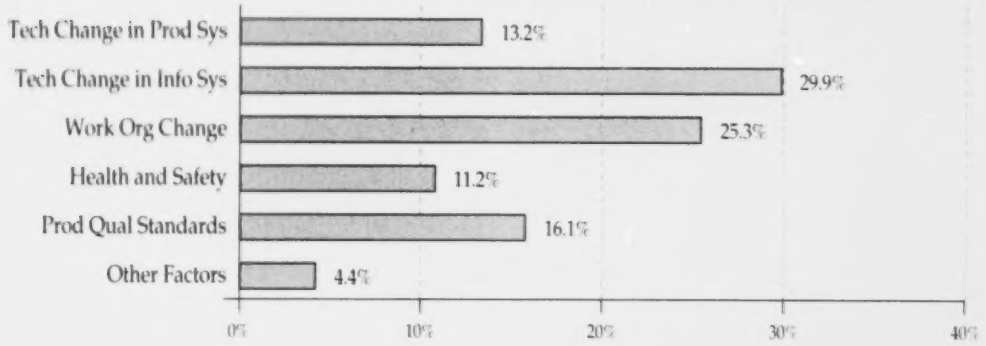


Chart 4.2: **Proportion of respondents citing factors causing an increased need for writing skills**

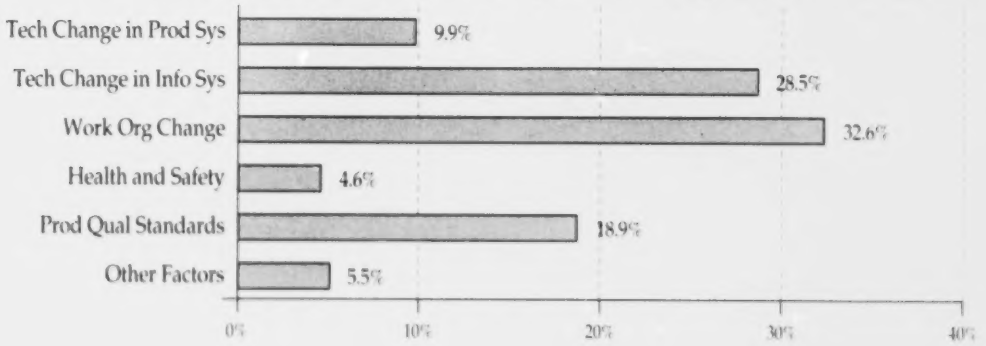


Chart 4.3: **Proportion of respondents citing factors causing an increased need for numeracy skills**

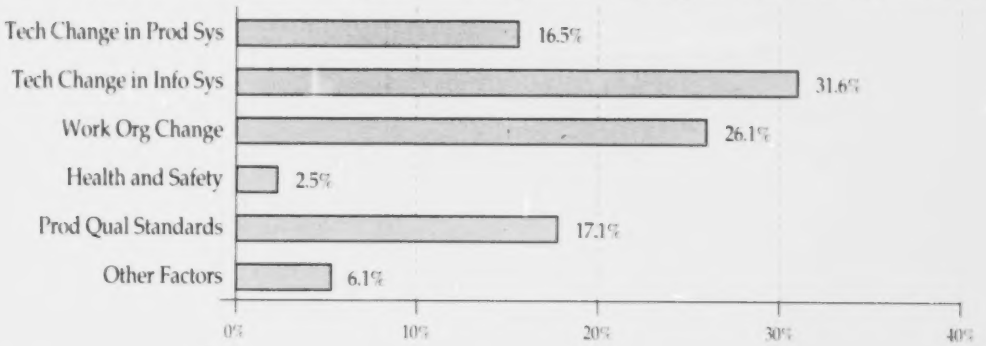


Chart 4.4: **Proportion of respondents citing factors causing an increased need for oral communication skills**

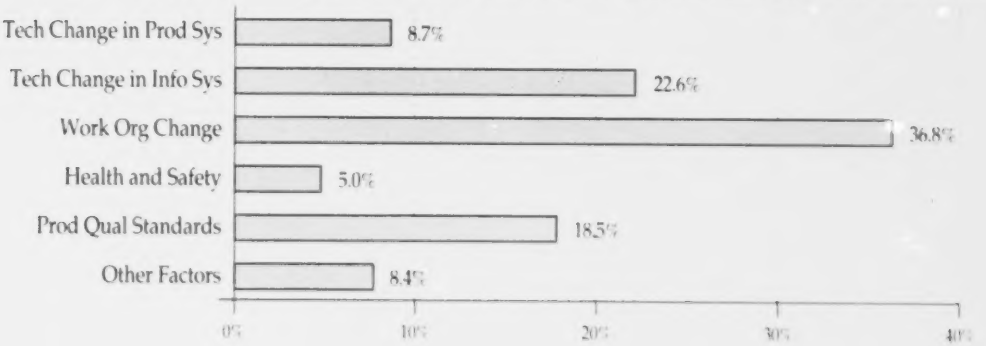


Table 4.5: **Causes of Increased Demand for Basic Skills (percentage citing factor)**

	Technological change in production systems	Technological change in communication systems	Change in work organisation
	%	%	%
Total Sample	11.98	28.14	30.17
Clerical or Secretarial	4.20	46.01	34.38
Personal Service	2.82	16.73	44.25
Selling Jobs	9.53	44.96	26.37
Skilled Craft Manual	22.82	25.38	20.85
Operatives	19.30	16.60	23.53
Other Manual	9.72	17.82	33.45
Agriculture	29.43	18.44	19.92
Energy and Water Supply	13.11	34.63	26.70
Mineral Extraction	21.70	16.84	16.24
Metal Goods	22.03	20.75	18.57
Other Manufacture	24.48	16.89	22.26
Construction	11.14	28.87	26.33
Distribution Hotels	11.87	37.89	25.84
Transport and Communications	5.62	32.87	33.98
Banking and Finance	6.43	43.95	27.92
Other Services	4.02	24.38	43.22

	Health & Safety regulations	Change in production quality standards	Other factors
	%	%	%
Total Sample	5.87	17.52	6.32
Clerical or Secretarial	0.65	8.54	6.23
Personal Service	9.30	15.79	11.10
Selling Jobs	2.91	7.24	8.99
Skilled Craft Manual	6.66	19.99	4.30
Operatives	6.72	30.97	2.89
Other Manual	11.53	21.69	5.80
Agriculture	17.91	9.81	4.49
Energy and Water Supply	8.09	10.68	6.80
Mineral Extraction	9.45	34.51	1.26
Metal Goods	4.32	32.47	1.84
Other Manufacture	4.69	29.35	2.33
Construction	10.95	16.52	6.18
Distribution Hotels	5.92	11.47	7.01
Transport and Communications	4.26	16.21	7.06
Banking and Finance	1.23	13.41	7.06
Other Services	6.82	12.17	9.39

4.5 Summary

This concludes our discussion on recent changes in the demand for basic skills. We have shown that good basic skills have become more important in the last five years. This is particularly so for oral communications, with nearly half our respondents citing an increase in the importance of this skill.

There is certainly no question of these skills becoming less important to employers; virtually no respondents had noted any decline in their demand, although about half had observed no change in their demand. This proportion is lowest among Semi Skilled Operatives, who have experienced the widest increase in basic skill demand, and is highest among Clerical/Secretarial and Other Manual Jobs.

There is also considerable variation between different types of employers, with demand for basic skills more likely to have increased among large, public sector establishments with experience of labour shortages.

Among employers for whom basic skills had become more important in the last five years, the most commonly cited reasons for the increase are the increased need to work with information technology and changing work organisation.

Basic Skills Supply

This final chapter is about employers' perceptions of the adequacy of the local supply of basic skills. Such reliable statistical information as exists on this question suggests that serious basic skill deficiencies do afflict a minority of the adult population. It also suggests that most people with such problems are extremely adept at devising effective 'coping' strategies to meet the demands of their working and non-working lives.

5.1 How Adequate is the Supply of Basic Skills among Employees?

As reported in Volume 1 our survey sought information separately on reading, writing, numeracy and oral communication skills. For each of them, employers were asked how adequately their workforce met their needs, by indicating whether supply could be best described as 'More than Adequate', 'Fairly Adequate', 'Only Just Adequate', 'Less than Adequate', or 'Completely Inadequate'. The results showed that the average level of satisfaction is just above fairly adequate.

5.2 Variation between Occupations

As we have seen, different jobs have different basic skill requirements, and so it is necessary to assess this level of (dis)satisfaction among employers, distinguishing between different occupations.

In Table 5.1 to 5.4 we show the distribution of satisfaction with each basic skill amongst employees by occupation. There is a strong occupational skew to these patterns of adequacy: as we descend the occupational scale, the very high proportions reporting basic skills to be more than adequate declines and the numbers believing employee's reading skills to be only adequate or worse increases.

We present for reference purposes the full list of our Sub-Group occupational categories for each of the basic skills. We do not analyse them in detail here, but they generally follow the occupational variation described above.

5.3 Variation between Workplaces

Naturally, the extent to which employers are satisfied with the basic skills possessed by their employees is not just influenced by the kind of jobs which predominate at each establishment, it is also influenced by the kind of employer who is making the assessment, by their size, the activity in which they are engaged, and so on.

In Table 5.5, we consider the results of a logit analysis for each of the four basic skills. The reference category is an 'Other Manual Job' in a private sector construction firm, with between 0-19 employees, based in a rural village location in the north, which has been shrinking and not experiencing any labour market difficulties. The table shows that:

- The chances of being satisfied with basic skill provision increases as we ascend the occupational spectrum
- larger firms are more likely to be dissatisfied with writing and numeracy skills than our reference, but this relationship is not significant for reading and oral communication skills
- the industry in which the firm operates is a significant factor. The results show that firms in the service sector are more likely to be more dissatisfied with all the basic skills. However, the picture is less clear when considering the production industries
- the odds of being dissatisfied with basic skills are around 1.3 times higher for a firm in the public sector than in the private sector, and these ownership effects are statistically significant
- the incidence of labour market shortage is a significant influence on satisfaction. Compared with a firm experiencing no shortages, companies with shortages are between a third and half more times more likely to be dissatisfied with their employees' basic skills
- the influence of location is not a significant influence, except for writing skills, where urban centres are more likely to be dissatisfied
- there are no significant regional impacts on the likelihood of dissatisfaction.

5.4 How Adequate is the Supply of Basic Skills among Applicants?

If we are to have a full understanding of the adequacy of basic skills among the workforce as a whole, then we need to make an assessment not only of people currently in jobs, but also of those entering and moving about in the labour market. After all, from an employer's perspective, his/her labour supply is made up of potential, as well as actual, employees.

Obviously, to be able to speak with real confidence about basic skill supply in the labour market as a whole would require a much larger scale audit of the working population than we have been able to undertake, but in order to throw some light on this wider notion of labour supply, we also asked our respondents to give us their assessment about people applying for jobs, in addition to those already holding them. We are aware of the weakness of this approach, and in what follows, we would urge that readers regard the findings as indicative of the adequacy of the wider supply of basic skills, rather than as a complete analysis.

As reported in *'Basic Skills and Jobs'* Volume 1, the results show that average level of satisfaction falls below 'fairly adequate' although rising almost exactly to that point for reading skills. In terms of the distribution, 28 per cent of employers think that applicants' numeracy and writing skills are only just adequate or worse, although this falls to 18 per cent for reading skills. High levels of satisfaction are more common with reading skills than with all the other skills; 26 per cent of employers perceive applicants' reading skills to be more than adequate, compared to around 20 per cent for each of the other skills.

If we compare employers' assessment of their workforces' skills with those perceived amongst applicants we can see that employers are generally less satisfied with the basic skills of their applicants than their employees'. We have already shown that within the establishment, basic skills competence tends to be more important for promotion than it is for recruitment. Now it would seem the hierarchy extends outside the workplace, with people who are not hired generally possessing less adequate basic skills than those who are.

5.5 Variation between Occupations

As before, we note that different jobs have different basic skill requirements, and so we must again distinguish between employers' assessments of applicants to the different jobs covered in our survey.

There is a strong occupational skew to these patterns of adequacy amongst applicants with higher levels of respondents perceiving that applicants to Clerical/Secretarial jobs have fairly or more than adequate reading skills than for applicants to Other manual jobs or Plant, Vehicle and Machine Operative jobs.

We present for reference purposes the level of adequacy for each skill disaggregated by the full list of our Sub-Group occupational categories, but do not analyse them in detail here. They generally follow the occupational variation described above.

5.6 Variation between Employers

Here, as in the previous chapters, we need to consider the distinction between different kinds of employer making the assessment of the adequacy of supply, looking at the influence of their size, the activity in which they are engaged, and so on. Again we have conducted a logit analysis (using the same conventions as above, and explained in section 2.4) the results of which are presented in Table 5.10. These show that:

- occupation is consistently a significant factor in satisfaction with applicants' skills, with the higher occupations showing the higher satisfaction levels. However, this relationship is not consistently significant for all occupations and all skills
- size is only a significant factor for satisfaction with applicants' reading skills, with larger employers likely to be more dissatisfied, although this is not statistically significant for the largest employers
- most industry sectors are more likely to be more satisfied with their basic skills supply than the construction industry, although this is only consistently significant for reading and writing skills
- the public sector consistently and significantly is more dissatisfied with applicants' skills than the private sector
- firms with labour market shortage are more likely to be dissatisfied with applicants' skills than firms with no shortages for each of the skills
- there are no statistically significant regional influences on the likelihood of satisfaction.

5.7 Summary

We have described employers' assessments of the adequacy of their basic skill requirements and shown that employers generally believe that their workforces' basic skills are 'fairly adequate', but that they are less satisfied with the basic skills of applicants.

There is, however, a substantial minority of respondents for whom basic skills are only just adequate or worse. The question of whether this level of basic skill is satisfactory or not, given the fundamental importance of basic skills to the UK economy is one we addressed at length in *'Basic Skills and Jobs'* Volume 1, and one on which we will not dwell further in this statistical volume.

There is a strong occupational skew to the pattern of satisfaction, with employers generally being more satisfied with the basic skills of both employees and applicants among the more skilled occupations. Other employer and labour market factors exert their own influence, but this is less strong and less clear in pattern.

Table 5.1: **Distribution of Satisfaction with Basic Skills Supply Among Employees by Occupation**

Reading skills among workforce	Workforce adequacy : reading					
	More than adequate	Fairly adequate	Only just adequate	Less than adequate	Completely inadequate	Average score
	%	%	%	%	%	
All Jobs	51	42	5	1	1	3.43
Pub. Sec. Clericals 40	73	27	1	0	0	3.72
Numerical Clerks 41	68	30	1	0	1	3.64
Filing Clerks 42	77	20	1	0	1	3.72
Other Clerks 43	69	28	2	0	1	3.64
Stores Clerks 44	40	52	6	2	0	3.28
Secretaries/WP 45	73	25	1	0	1	3.69
Receptionists etc. 46	72	24	2	0	2	3.63
Other Clerical/Sec 49	68	29	2	0	1	3.63
Construction Trades 50	35	56	8	1	0	3.24
Machining Trades 52	48	46	5	1	1	3.39
Electrical/Electronic Trades 52	49	45	5	0	0	3.43
Metal Forming Trades 53	36	55	7	0	2	3.23
Vehicle Trades 54	40	53	5	1	1	3.30
Textile Trades 55	43	48	6	2	1	3.31
Printing Trades 56	44	49	5	1	1	3.35
Woodworking Trades 57	35	53	9	2	1	3.20
Food Prep Trades 58	46	39	14	0	0	3.32
Other Trades 59	45	47	7	1	0	3.34
NCOs etc. 60	50	50	0	0	0	3.50
Security Occupations 61	41	46	12	1	0	3.27
Catering Occupations 62	53	42	4	0	1	3.45
Travel Rel. Occupations 63	47	47	6	0	0	3.41
Health Occupations 64	52	43	4	1	1	3.45
Childcare Occupations 65	72	26	1	0	1	3.67
Hairdressing etc. 66	52	39	5	2	3	3.35
Domestic Staff 67	48	43	8	1	0	3.38
Other Personal Services 69	60	34	4	1	1	3.53
Buyer etc. 70	79	21	0	0	0	3.79
Sales Reps 71	59	35	4	0	1	3.52
Sales Assistants 72	56	40	3	0	1	3.50
Salespersons 73	54	35	5	1	4	3.35
Other Sales Occupations 79	51	42	5	1	1	3.41
FDT Operatives 80	30	54	13	3	0	3.10
Textiles Ops 81	36	49	10	4	0	3.18
Chemicals etc. Ops 82	29	58	11	2	0	3.12
Metal Making Ops 83	33	55	7	4	1	3.15
Metal Working Ops 84	39	46	13	0	1	3.22
Assemblers 85	35	57	7	1	0	3.26
Other Process Ops 86	32	56	10	1	0	3.18
Road Transport Ops 87	37	56	6	1	0	3.28
Other Transport Ops 88	39	54	5	1	0	3.31
Other Operatives 89	31	58	9	2	1	3.17
Others Agric. 90	50	41	6	0	2	3.36
Others Manuf. 91	34	55	8	2	1	3.20
Others Construction 92	25	61	13	2	0	3.08
Others Transport 93	27	58	12	1	1	3.07
Others Comms. 94	50	45	2	0	2	3.40
Others Sales etc. 95	47	45	6	1	0	3.38
All Others 99	34	52	9	4	1	3.15

Table 5.2: **Distribution of Satisfaction with Basic Skills Supply Among Employees by Occupation**

Writing skills among workforce	Workforce adequacy : writing					
	More than adequate	Fairly adequate	Only just adequate	Less than adequate	Completely inadequate	Average score
	%	%	%	%	%	
All Jobs	39	47	11	2	1	3.20
Pub. Sec. Clericals 40	55	41	4	1	0	3.49
Numerical Clerks 41	48	42	8	1	1	3.34
Filing Clerks 42	63	31	5	1	1	3.53
Other Clerks 43	52	39	7	1	1	3.41
Stores Clerks 44	27	54	14	3	1	3.04
Secretaries/WP 45	59	36	4	1	1	3.51
Receptionists etc. 46	59	32	5	1	2	3.45
Other Clerical/Sec 49	47	40	10	2	1	3.31
Construction Trades 50	25	51	19	5	0	2.96
Machining Trades 52	31	50	15	3	1	3.09
Electrical/Electronic Trades 52	32	49	16	3	0	3.09
Metal Forming Trades 53	27	53	15	3	2	3.01
Vehicle Trades 54	25	55	14	4	1	3.00
Textile Trades 55	35	49	12	4	1	3.13
Printing Trades 56	34	50	13	2	1	3.15
Woodworking Trades 57	29	46	17	7	1	2.95
Food Prep Trades 58	38	39	19	4	0	3.10
Other Trades 59	35	50	10	5	0	3.14
NCOs etc. 60	50	50	0	0	0	3.50
Security Occupations 61	21	55	21	3	0	2.94
Catering Occupations 62	43	45	9	1	1	3.28
Travel Rel. Occupations 63	29	59	12	0	0	3.18
Health Occupations 64	40	48	10	2	1	3.24
Childcare Occupations 65	59	36	3	0	1	3.51
Hairdressing etc. 66	51	37	7	2	3	3.30
Domestic Staff 67	42	42	13	2	0	3.25
Other Personal Services 69	43	43	11	2	1	3.26
Buyer etc. 70	50	46	4	0	0	3.46
Sales Reps 71	39	44	13	2	1	3.18
Sales Assistants 72	41	49	8	1	1	3.29
Salespersons 73	39	43	10	4	4	3.10
Other Sales Occupations 79	37	46	13	2	2	3.15
FDT Operatives 80	23	54	17	6	0	2.93
Textiles Ops 81	32	52	13	3	0	3.14
Chemicals etc. Ops 82	18	58	19	5	0	2.89
Metal Making Ops 83	19	51	23	6	1	2.83
Metal Working Ops 84	26	51	19	4	1	2.97
Assemblers 85	28	55	14	3	0	3.09
Other Process Ops 86	22	52	22	3	1	2.92
Road Transport Ops 87	24	57	15	3	1	3.01
Other Transport Ops 88	27	54	16	3	0	3.05
Other Operatives 89	24	56	15	5	1	2.98
Others Agric. 90	44	41	12	0	2	3.24
Others Manuf. 91	28	49	19	2	1	3.00
Others Construction 92	15	57	22	6	0	2.81
Others Transport 93	19	57	18	4	1	2.88
Others Comms. 94	33	49	15	0	2	3.11
Others Sales etc. 95	38	48	11	2	0	2.23
All Others 99	28	46	19	7	1	2.92

Table 5.3: **Distribution of Satisfaction with Basic Skills Supply Among Employees by Occupation**

Numeracy skills among workforce	Workforce adequacy : numeracy					Average score
	More than adequate	Fairly adequate	Only just adequate	Less than adequate	Completely inadequate	
	%	%	%	%	%	
All Jobs	39	48	10	2	1	3.23
Pub. Sec. Clericals 40	56	39	5	0	0	3.50
Numerical Clerks 41	58	37	4	0	1	3.50
Filing Clerks 42	60	35	4	0	1	3.52
Other Clerks 43	52	41	6	1	1	3.42
Stores Clerks 44	27	57	12	2	1	3.09
Secretaries/WP 45	50	43	5	1	1	3.41
Receptionists etc. 46	55	35	7	1	2	3.41
Other Clerical/Sec 49	57	36	6	1	1	3.47
Construction Trades 50	29	55	14	3	1	3.08
Machining Trades 52	35	53	11	2	1	3.19
Electrical/Electronic Trades 52	35	51	12	2	0	3.19
Metal Forming Trades 53	30	56	9	3	1	3.11
Vehicle Trades 54	27	59	11	2	1	3.09
Textile Trades 55	34	49	12	4	1	3.10
Printing Trades 56	34	52	11	2	1	3.17
Woodworking Trades 57	32	52	10	3	2	3.09
Food Prep Trades 58	32	43	19	4	1	3.00
Other Trades 59	39	48	10	4	0	3.21
NCOs etc. 60	75	25	0	0	0	3.75
Security Occupations 61	25	55	16	4	0	3.02
Catering Occupations 62	40	50	8	1	1	3.26
Travel Rel. Occupations 63	29	59	12	0	0	3.18
Health Occupations 64	37	51	10	1	1	3.23
Childcare Occupations 65	58	37	3	0	1	3.51
Hairdressing etc. 66	46	39	10	2	3	3.22
Domestic Staff 67	43	41	14	2	0	3.25
Other Personal Services 69	46	43	9	2	1	3.31
Buyer etc. 70	58	38	4	0	0	3.54
Sales Reps 71	42	47	9	1	1	3.28
Sales Assistants 72	43	49	7	1	1	3.33
Salespersons 73	44	46	1	5	4	3.21
Other Sales Occupations 79	42	47	7	4	1	3.25
FDT Operatives 80	21	54	20	4	1	2.91
Textiles Ops 81	26	58	13	3	0	3.08
Chemicals etc. Ops 82	19	56	21	4	1	2.89
Metal Making Ops 83	24	48	20	6	2	2.85
Metal Working Ops 84	30	50	16	4	1	3.03
Assemblers 85	27	54	14	4	0	3.03
Other Process Ops 86	22	52	20	5	0	2.90
Road Transport Ops 87	28	59	12	1	1	3.12
Other Transport Ops 88	28	56	14	2	0	3.11
Other Operatives 89	24	55	17	4	0	2.97
Others Agric. 90	43	43	11	1	2	3.25
Others Manuf. 91	29	54	14	4	0	3.07
Others Construction 92	18	62	15	5	0	2.92
Others Transport 93	18	66	10	4	1	2.94
Others Comms. 94	31	55	11	1	2	3.11
Others Sales etc. 95	38	49	11	2	0	3.21
All Others 99	25	52	17	5	1	2.95

Table 5.4: **Distribution of Satisfaction with Basic Skills Supply Among Employees by Occupation**

Oral comm. skills among workforce	Workforce adequacy : oral skills					Average score
	More than adequate	Fairly adequate	Only just adequate	Less than adequate	Completely inadequate	
	%	%	%	%	%	
All Jobs	44	47	8	1	1	3.31
Pub. Sec. Clericals 40	54	43	2	1	0	3.51
Numerical Clerks 41	52	40	6	1	1	3.42
Filing Clerks 42	66	30	3	0	1	3.59
Other Clerks 43	55	38	5	1	1	3.47
Stores Clerks 44	31	56	10	2	0	3.16
Secretaries/WP 45	60	35	4	0	1	3.53
Receptionists etc. 46	62	32	3	1	2	3.51
Other Clerical/Sec 49	52	42	4	1	1	3.44
Construction Trades 50	32	53	11	3	1	3.12
Machining Trades 52	34	54	10	2	1	3.19
Electrical/Electronic Trades 52	36	51	11	2	1	3.19
Metal Forming Trades 53	30	55	11	2	2	3.11
Vehicle Trades 54	32	55	10	1	1	3.15
Textile Trades 55	39	47	10	3	1	3.22
Printing Trades 56	34	53	10	2	1	3.18
Woodworking Trades 57	30	54	13	2	2	3.08
Food Prep Trades 58	39	46	13	3	0	3.20
Other Trades 59	41	49	9	1	0	3.28
NCOs etc. 60	50	50	0	0	0	3.50
Security Occupations 61	34	51	14	1	0	3.19
Catering Occupations 62	45	48	5	1	1	3.35
Travel Rel. Occupations 63	35	59	6	0	0	3.29
Health Occupations 64	51	41	6	1	1	3.41
Childcare Occupations 65	66	29	3	1	1	3.58
Hairdressing etc. 66	53	37	6	2	3	3.36
Domestic Staff 67	45	47	8	0	0	3.37
Other Personal Services 69	53	38	7	1	1	3.41
Buyer etc. 70	71	25	4	0	0	3.67
Sales Reps 71	48	46	4	0	1	3.41
Sales Assistants 72	47	47	5	1	1	3.38
Salespersons 73	39	48	9	0	4	3.19
Other Sales Occupations 79	49	42	6	1	2	3.35
FDT Operatives 80	27	51	17	4	1	2.99
Textiles Ops 81	39	47	11	3	0	3.24
Chemicals etc. Ops 82	23	61	13	2	0	3.05
Metal Making Ops 83	22	61	14	4	0	3.01
Metal Working Ops 84	27	58	11	3	1	3.09
Assemblers 85	30	56	12	2	0	3.15
Other Process Ops 86	26	59	12	3	0	3.07
Road Transport Ops 87	30	58	9	2	1	3.15
Other Transport Ops 88	33	55	9	3	0	3.19
Other Operatives 89	29	57	11	3	1	3.10
Others Agric. 90	48	44	6	0	2	3.35
Others Manuf. 91	34	53	10	2	1	3.18
Others Construction 92	22	64	12	3	0	3.05
Others Transport 93	28	61	9	0	1	3.15
Others Comms. 94	33	53	10	2	2	3.11
Others Sales etc. 95	42	47	10	1	0	3.30
All Others 99	30	54	11	4	1	3.09

Table 5.5: **LOGIT Analysis: Dissatisfaction with Employees' Skills vs Satisfaction with Employees' Skills**

		Reading		Writing		Numeracy		Oral Comms.	
Variable		Coefficient	Significance	Coefficient	Significance	Coefficient	Significance	Coefficient	Significance
Occupation	(other manual jobs)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	clerical/secretarial jobs	4.75	0.00*	2.91	0.00*	2.60	0.00*	2.45	0.00*
	personal service jobs	2.46	0.00*	1.81	0.00*	1.78	0.00*	1.83	0.00*
	selling jobs	2.90	0.00*	1.89	0.00*	2.66	0.00*	2.66	0.00*
	skilled manual jobs	2.18	0.00*	1.50	0.00*	1.98	0.00*	1.55	0.00*
	plant/machine operatives	1.20	0.06	0.95	0.46	1.01	0.88	1.11	0.23
Size	(0-19 employees)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	20-49 employees	1.06	0.43	0.86	0.01*	0.82	0.00*	0.93	0.27
	50-99 employees	0.98	0.83	0.81	0.00*	0.75	0.00*	0.93	0.37
	100-199 employees	0.91	0.33	0.77	0.00*	0.78	0.00*	0.91	0.31
	over 200 employees	1.01	0.92	0.74	0.00*	0.74	0.00*	0.78	0.00*
Industry	(construction)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	agriculture etc.	1.66	0.06	2.15	0.00*	1.81	0.01*	1.53	0.08
	energy & water supply	1.59	0.16	1.69	0.02*	1.36	0.19	1.41	0.20
	extraction, metal manuf. etc.	1.69	0.01*	1.61	0.00*	1.53	0.00*	1.38	0.05
	metal goods, engineering	1.74	0.00*	1.81	0.00*	1.68	0.00*	1.48	0.00*
	other manufacturing	1.39	0.01*	1.71	0.00*	1.29	0.01*	1.28	0.03*
	distribution, hotels etc.	1.79	0.00*	1.79	0.00*	1.56	0.00*	1.39	0.00*
	transport and communication	2.13	0.00*	1.81	0.00*	2.13	0.00*	1.48	0.01*
	banking, finance etc.	2.07	0.00*	1.47	0.00*	2.04	0.00*	1.33	0.04*
	other services	1.82	0.00*	2.01	0.00*	1.77	0.00*	1.69	0.00*
Sector	(private sector)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	public sector	1.37	0.00*	1.38	0.00*	1.42	0.00*	1.30	0.00*
Labour Shortage	(no shortages)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	occasional shortages	0.54	0.00*	0.50	0.00*	0.54	0.00*	0.53	0.00*
	serious shortages	0.35	0.00*	0.35	0.00*	0.35	0.00*	0.33	0.00*
Labour Mkt	(rural/village)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	large city centre	0.83	0.17	0.80	0.01*	0.90	0.26	0.91	0.38
	large city suburb	0.94	0.57	0.77	0.00*	0.92	0.31	0.86	0.09
	large/medium town	0.92	0.40	0.92	0.26	1.05	0.51	0.99	0.94
	small town	0.88	0.20	0.86	0.04*	0.88	0.07	0.87	0.10
Region	(North)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	North West	0.85	0.20	0.92	0.36	0.91	0.33	0.90	0.30
	Yorkshire and Humberside	0.72	0.02*	0.83	0.05	0.83	0.07	0.73	0.00*
	East Midlands	0.87	0.30	0.84	0.06	0.89	0.24	0.87	0.20
	West Midlands	0.91	0.50	0.87	0.16	0.85	0.10	0.87	0.22
	East Anglia	0.78	0.10	0.81	0.06	0.87	0.25	0.97	0.83
	Greater London	0.66	0.00*	0.77	0.01*	0.87	0.21	0.90	0.36
	South East	0.79	0.09	0.87	0.14	0.94	0.51	0.95	0.67
	South West	1.04	0.81	0.95	0.61	0.99	0.94	1.11	0.39
	Wales	0.82	0.18	0.79	0.02*	0.87	0.20	0.92	0.47
Recent Emp Change	(shrinking)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	expanding	1.04	0.54	1.00	0.95	1.00	0.92	0.92	0.11
	stayed the same	1.23	0.00*	1.20	0.00*	1.20	0.00*	1.15	0.02*
		N = 20,921		N = 20,869		N = 20,810		N = 20,870	

* indicates statistical significance at conventional levels

Table 5.6: **Distribution of Satisfaction with Basic Skills Supply Among Applicants by Occupation**

Reading skills among applicants	Applicants adequacy : reading					
	More than adequate	Fairly adequate	Only just adequate	Less than adequate	Completely inadequate	Average score
	%	%	%	%	%	
All Jobs	26	56	14	3	1	3.04
Pub. Sec. Clericals 40	40	51	7	1	0	3.30
Numerical Clerks 41	36	52	10	2	1	3.20
Filing Clerks 42	38	51	8	2	1	3.23
Other Clerks 43	34	53	12	2	0	3.17
Stores Clerks 44	16	61	18	4	1	2.87
Secretaries/WP 45	36	53	9	1	0	3.23
Receptionists etc. 46	38	47	11	2	2	3.16
Other Clerical/Sec 49	37	50	8	3	2	3.17
Construction Trades 50	18	57	20	4	1	2.87
Machining Trades 52	23	58	15	4	1	2.99
Electrical/Electronic Trades 52	22	62	14	2	0	3.02
Metal Forming Trades 53	17	61	17	5	0	2.89
Vehicle Trades 54	16	61	18	5	1	2.86
Textile Trades 55	20	60	15	4	0	2.96
Printing Trades 56	20	58	17	4	1	2.92
Woodworking Trades 57	17	57	19	5	2	2.81
Food Prep Trades 58	21	47	28	4	0	2.84
Other Trades 59	26	55	15	4	0	3.02
NCOs etc. 60	25	75	0	0	0	3.25
Security Occupations 61	22	48	23	7	0	2.86
Catering Occupations 62	26	57	15	2	0	3.05
Travel Rel. Occupations 63	18	71	12	0	0	3.06
Health Occupations 64	29	54	13	3	0	3.08
Childcare Occupations 65	45	48	5	1	0	3.36
Hairdressing etc. 66	26	55	13	4	2	3.00
Domestic Staff 67	27	53	13	6	0	3.02
Other Personal Services 69	32	54	9	4	1	3.12
Buyer etc. 70	64	23	9	5	0	3.45
Sales Reps 71	31	51	15	2	1	3.11
Sales Assistants 72	24	59	13	3	1	3.03
Salespersons 73	29	56	10	1	3	3.09
Other Sales Occupations 79	28	55	14	3	1	3.06
FDT Operatives 80	14	60	19	7	0	2.81
Textiles Ops 81	20	56	17	7	0	2.89
Chemicals etc. Ops 82	18	54	23	5	0	2.85
Metal Making Ops 83	15	53	28	5	0	2.78
Metal Working Ops 84	20	56	18	4	1	2.91
Assemblers 85	18	59	19	4	0	2.90
Other Process Ops 86	18	55	21	7	0	2.83
Road Transport Ops 87	19	64	13	3	0	2.98
Other Transport Ops 88	19	60	17	4	0	2.93
Other Operatives 89	18	59	19	5	0	2.89
Others Agric. 90	28	54	13	3	1	3.05
Others Manuf. 91	21	59	15	4	1	2.96
Others Construction 92	15	62	21	3	0	2.89
Others Transport 93	20	61	14	2	3	2.94
Others Comms. 94	22	64	10	4	0	3.05
Others Sales etc. 95	29	55	14	2	0	3.10
All Others 99	22	53	15	8	1	2.86

Table 5.7: **Distribution of Satisfaction with Basic Skills Supply Among Applicants by Occupation**

Writing skills among applicants	Applicants adequacy : reading					
	More than adequate	Fairly adequate	Only just adequate	Less than adequate	Completely inadequate	Average score
	%	%	%	%	%	
All Jobs	20	52	21	7	1	2.84
Pub. Sec. Clericals 40	32	50	16	3	0	3.11
Numerical Clerks 41	25	50	19	5	0	2.94
Filing Clerks 42	29	52	14	4	1	3.05
Other Clerks 43	25	50	19	6	0	2.93
Stores Clerks 44	12	52	24	10	2	2.61
Secretaries/WP 45	26	52	17	4	0	3.00
Receptionists etc. 46	30	46	16	6	2	2.97
Other Clerical/Sec 49	26	52	11	10	1	2.91
Construction Trades 50	14	53	24	9	0	2.70
Machining Trades 52	17	53	22	7	1	2.78
Electrical/Electronic Trades 52	15	56	24	5	0	2.78
Metal Forming Trades 53	14	55	24	6	1	2.75
Vehicle Trades 54	13	49	28	10	1	2.63
Textile Trades 55	18	54	21	6	1	2.83
Printing Trades 56	16	52	24	8	1	2.75
Woodworking Trades 57	14	50	23	11	2	2.65
Food Prep Trades 58	21	38	31	10	0	2.69
Other Trades 59	20	53	20	7	1	2.85
NCOs etc. 60	25	25	50	0	0	2.75
Security Occupations 61	18	37	34	11	0	2.62
Catering Occupations 62	22	54	19	6	1	2.90
Travel Rel. Occupations 63	18	41	35	6	0	2.71
Health Occupations 64	23	52	18	6	1	2.92
Childcare Occupations 65	37	50	10	2	0	3.22
Hairdressing etc. 66	23	53	19	4	1	2.93
Domestic Staff 67	25	47	19	9	0	2.89
Other Personal Services 69	24	52	16	7	1	2.92
Buyer etc. 70	41	45	14	0	0	3.27
Sales Reps 71	21	48	24	7	1	2.80
Sales Assistants 72	18	54	21	7	1	2.82
Salespersons 73	18	62	14	4	3	2.88
Other Sales Occupations 79	18	53	17	8	3	2.76
FDT Operatives 80	12	53	24	10	0	2.67
Textiles Ops 81	16	57	19	8	0	2.81
Chemicals etc. Ops 82	14	48	27	10	0	2.66
Metal Making Ops 83	14	46	27	14	0	2.60
Metal Working Ops 84	15	50	24	10	1	2.68
Assemblers 85	15	48	29	7	1	2.70
Other Process Ops 86	13	48	27	10	1	2.63
Road Transport Ops 87	15	59	20	6	1	2.81
Other Transport Ops 88	16	54	23	6	1	2.78
Other Operatives 89	13	54	24	9	0	2.69
Others Agric. 90	26	52	16	6	1	2.96
Others Manuf. 91	17	52	23	7	1	2.77
Others Construction 92	14	52	27	7	0	2.72
Others Transport 93	17	55	16	9	3	2.73
Others Comms. 94	15	59	21	5	0	2.84
Others Sales etc. 95	24	55	16	6	0	2.96
All Others 99	17	47	22	12	1	2.67

Table 5.8: **Distribution of Satisfaction with Basic Skills Supply Among Applicants by Occupation**

Numeracy skills among applicants	Applicants adequacy : reading					
	More than adequate	Fairly adequate	Only just adequate	Less than adequate	Completely inadequate	Average score
	%	%	%	%	%	
All Jobs	19	52	20	7	1	2.82
Pub. Sec. Clericals 40	28	51	17	3	0	3.04
Numerical Clerks 41	25	51	18	6	0	2.94
Filing Clerks 42	24	55	16	4	1	2.98
Other Clerks 43	22	52	19	6	0	2.89
Stores Clerks 44	12	53	24	9	2	2.64
Secretaries/WP 45	21	51	21	6	1	2.87
Receptionists etc. 46	24	50	17	7	2	2.86
Other Clerical/Sec 49	27	50	14	7	2	2.95
Construction Trades 50	16	53	22	8	1	2.75
Machining Trades 52	18	50	22	9	1	2.75
Electrical/Electronic Trades 52	16	57	23	4	0	2.84
Metal Forming Trades 53	14	53	23	10	1	2.69
Vehicle Trades 54	11	53	27	8	1	2.67
Textile Trades 55	16	54	20	9	1	2.77
Printing Trades 56	15	53	21	9	1	2.72
Woodworking Trades 57	16	50	21	10	2	2.67
Food Prep Trades 58	22	38	25	12	3	2.65
Other Trades 59	21	51	20	7	1	2.85
NCOs etc. 60	50	25	25	0	0	3.25
Security Occupations 61	19	43	31	6	2	2.72
Catering Occupations 62	21	52	21	6	1	2.85
Travel Rel. Occupations 63	12	53	35	0	0	2.76
Health Occupations 64	22	54	18	6	0	2.91
Childcare Occupations 65	37	51	10	2	1	3.23
Hairdressing etc. 66	23	52	18	7	1	2.90
Domestic Staff 67	24	52	18	7	0	2.93
Other Personal Services 69	23	54	16	6	1	2.92
Buyer etc. 70	48	38	10	0	5	3.24
Sales Reps 71	21	48	24	5	1	2.82
Sales Assistants 72	17	54	20	8	1	2.78
Salespersons 73	17	58	12	10	3	2.77
Other Sales Occupations 79	19	48	23	8	2	2.74
FDT Operatives 80	13	51	23	12	0	2.64
Textiles Ops 81	17	57	15	11	0	2.81
Chemicals etc. Ops 82	15	48	28	8	1	2.67
Metal Making Ops 83	14	41	28	17	0	2.51
Metal Working Ops 84	19	45	23	11	1	2.69
Assemblers 85	14	47	29	10	0	2.64
Other Process Ops 86	13	48	27	12	1	2.60
Road Transport Ops 87	16	59	18	6	0	2.85
Other Transport Ops 88	17	52	23	8	0	2.77
Other Operatives 89	13	52	23	11	0	2.65
Others Agric. 90	20	53	17	8	1	2.84
Others Manuf. 91	19	51	21	8	1	2.80
Others Construction 92	14	56	23	7	0	2.78
Others Transport 93	16	58	13	11	3	2.72
Others Comms. 94	14	67	16	4	0	2.90
Others Sales etc. 95	23	54	17	5	1	2.94
All Others 99	17	49	18	14	1	2.67

Table 5.9: **Distribution of Satisfaction with Basic Skills Supply Among Applicants by Occupation**

Oral Comms skills among applicants	Applicants adequacy : reading					
	More than adequate	Fairly adequate	Only just adequate	Less than adequate	Completely inadequate	Average score
	%	%	%	%	%	
All Jobs	21	54	18	6	1	2.88
Pub. Sec. Clericals 40	29	52	15	4	0	3.06
Numerical Clerks 41	23	53	19	5	1	2.92
Filing Clerks 42	26	55	12	6	1	2.99
Other Clerks 43	23	53	18	5	0	2.93
Stores Clerks 44	14	57	20	7	1	2.75
Secretaries/WP 45	25	52	17	5	1	2.96
Receptionists etc. 46	26	47	16	9	3	2.85
Other Clerical/Sec 49	24	51	15	7	2	2.89
Construction Trades 50	16	54	20	9	1	2.75
Machining Trades 52	18	53	21	7	1	2.80
Electrical/Electronic Trades 52	16	55	21	6	1	2.81
Metal Forming Trades 53	13	57	24	6	1	2.75
Vehicle Trades 54	13	54	23	8	1	2.71
Textile Trades 55	18	59	17	6	0	2.87
Printing Trades 56	15	57	20	7	1	2.78
Woodworking Trades 57	14	57	21	7	2	2.74
Food Prep Trades 58	23	45	20	10	1	2.78
Other Trades 59	23	49	20	7	0	2.88
NCOs etc. 60	50	0	50	0	0	3.00
Security Occupations 61	19	45	25	12	0	2.71
Catering Occupations 62	24	51	17	7	1	2.89
Travel Rel. Occupations 63	12	53	18	18	0	2.59
Health Occupations 64	28	53	14	5	1	3.02
Childcare Occupations 65	37	50	10	3	0	3.20
Hairdressing etc. 66	28	49	17	5	1	2.96
Domestic Staff 67	27	49	19	5	0	2.98
Other Personal Services 69	24	53	15	7	1	2.93
Buyer etc. 70	50	32	5	14	0	3.18
Sales Reps 71	25	46	21	7	1	2.88
Sales Assistants 72	20	54	19	6	1	2.84
Salespersons 73	17	56	17	8	3	2.77
Other Sales Occupations 79	19	45	26	8	1	2.74
FDT Operatives 80	14	58	19	8	2	2.73
Textiles Ops 81	21	53	19	7	0	2.89
Chemicals etc. Ops 82	16	57	21	6	0	2.82
Metal Making Ops 83	16	47	28	9	1	2.67
Metal Working Ops 84	17	56	19	7	1	2.81
Assemblers 85	16	53	25	6	0	2.78
Other Process Ops 86	16	51	25	7	0	2.76
Road Transport Ops 87	19	59	17	5	1	2.91
Other Transport Ops 88	18	55	21	6	0	2.85
Other Operatives 89	15	56	22	6	0	2.80
Others Agric. 90	24	55	15	6	2	2.94
Others Manuf. 91	20	58	16	5	1	2.92
Others Construction 92	17	55	24	3	1	2.86
Others Transport 93	19	56	16	6	3	2.81
Others Comms. 94	12	63	19	6	0	2.81
Others Sales etc. 95	25	54	16	5	0	2.99
All Others 99	18	53	20	8	2	2.78

Table 5.10: **LOGIT Analysis: Dissatisfaction with Applicants' Skills vs Satisfaction with Applicants' Skills**

		Reading		Writing		Numeracy		Oral Comms.	
Variable		**Coefficient**	**Significance**	**Coefficient**	**Significance**	**Coefficient**	**Significance**	**Coefficient**	**Significance**
Occupation	(other manual jobs)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	clerical/secretarial jobs	1.60	0.00*	1.23	0.00*	0.96	0.52	0.92	0.21
	personal service jobs	1.42	0.00*	1.26	0.00*	1.15	0.04*	1.20	0.01*
	selling jobs	1.48	0.00*	1.14	0.08	1.05	0.50	0.97	0.66
	skilled manual jobs	1.41	0.00*	1.20	0.00*	1.25	0.00*	1.13	0.06
	plant/machine operatives	0.85	0.03*	0.81	0.00*	0.82	0.00*	0.86	0.04*
Size	(0-19 employees)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	20-49 employees	0.94	0.22	0.83	0.00*	0.93	0.10	0.97	0.56
	50-99 employees	1.07	0.29	0.84	0.00*	0.94	0.25	1.05	0.32
	100-199 employees	1.04	0.60	0.83	0.00*	0.94	0.27	1.11	0.09
	over 200 employees	1.19	0.01*	0.89	0.05	0.91	0.10	1.18	0.01*
Industry	(construction)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	agriculture etc.	1.80	0.00*	1.49	0.02*	1.37	0.07	1.35	0.10
	energy & water supply	1.37	0.16	1.32	0.15	1.40	0.09	1.13	0.54
	extraction, metal manuf. etc.	1.41	0.01*	1.34	0.02*	1.21	0.12	1.24	0.09
	metal goods, engineering	1.41	0.00*	1.24	0.02*	1.12	0.22	1.13	0.19
	other manufacturing	1.23	0.03*	1.20	0.04*	1.09	0.32	1.14	0.14
	distribution, hotels etc.	1.33	0.00*	1.15	0.10	1.15	0.11	1.07	0.46
	transport and communication	1.89	0.00*	1.53	0.00*	1.59	0.00*	1.33	0.01*
	banking, finance etc.	1.74	0.00*	1.26	0.02*	1.54	0.00*	1.23	0.04*
	other services	1.64	0.00*	1.44	0.00*	1.56	0.00*	1.37	0.00*
Sector	(private sector)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	public sector	1.39	0.00*	1.41	0.00*	1.39	0.00*	1.40	0.00*
Labour Shortage	(no shortages)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	occasional shortages	0.45	0.00*	0.47	0.00*	0.45	0.00*	0.46	0.00*
	serious shortages	0.26	0.00*	0.28	0.00*	0.27	0.00*	0.27	0.00*
Labour Mkt	(rural/village)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	large city centre	0.78	0.01*	0.79	0.00*	0.82	0.01*	0.72	0.00*
	large city suburb	0.80	0.00*	0.76	0.00*	0.81	0.00*	0.77	0.00*
	large/medium town	0.82	0.00*	0.83	0.00*	0.86	0.01*	0.80	0.00*
	small town	0.82	0.00*	0.88	0.03*	0.83	0.00*	0.80	0.00*
Region	(North)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	North West	0.85	0.05	0.85	0.03*	0.87	0.07	0.83	0.01*
	Yorkshire and Humberside	0.84	0.05	0.84	0.02*	0.85	0.04*	0.86	0.07
	East Midlands	0.85	0.05	0.80	0.00*	0.84	0.02*	0.85	0.03*
	West Midlands	0.90	0.24	0.88	0.09	0.84	0.02*	0.93	0.38
	East Anglia	0.99	0.91	0.89	0.21	0.90	0.23	0.99	0.90
	Greater London	0.78	0.01*	0.85	0.04*	0.87	0.07	0.91	0.23
	South East	1.00	0.97	0.92	0.26	0.94	0.38	0.99	0.84
	South West	1.15	0.16	1.04	0.64	1.08	0.38	1.11	0.22
	Wales	1.09	0.39	0.96	0.60	0.95	0.53	0.96	0.65
Recent Emp Change	(shrinking)	(1.00)	—	(1.00)	—	(1.00)	—	(1.00)	—
	expanding	0.98	0.63	0.96	0.32	0.98	0.65	0.93	0.06
	stayed the same	1.18	0.00*	1.15	0.00*	1.12	0.01*	1.10	0.02*
		N = 20,473		N = 20,445		N = 20,333		N = 20,440	

* indicates statistical significance at conventional levels

Research Methods and Technical Information

The Institute of Manpower Studies was commissioned by ALBSU to undertake the first element of the Basic Skills at Work Programme, local surveys of employers' basic skill needs. This consisted of a series of employer surveys:

- to establish the standards of literacy, numeracy and oral communication required of employees in a range of jobs
- on this basis, to establish how adequately these standards are met by employees and jobseekers
- to establish the various sources of these requirements for basic skills (ie job-related, workplace-related, etc.), and to indicate whether such requirements are rising or falling.

A1.1 Research Approach

The research was conducted via a postal questionnaire. Neither face to face nor telephone interviews would have generated information on a sufficient scale to give veracity to the results, given the budget and timescales allowed.

A survey bureau - Research International - was contracted to undertake the survey fieldwork, following a research design and timetable stipulated by IMS and using a questionnaire designed by IMS.

A1.2 Design of Survey Materials

The questionnaire was the major research tool and yet was particularly problematic, for the following reasons:

- by and large employers do not use formal testing or standardised measures to evaluate their job needs or the capacity of workers/applicants to meet such needs. The questions would therefore need to use the rather general categories with which employers would be familiar, but which would also link in with the ALBSU Standards..
- IMS research for the Employment Service on employers' literacy needs had clearly shown the wide variation between jobs in the literacy needs which employers ascribed to them. The questionnaire would therefore need to cover a wide range of different sectors and business/workplace environments, as well as a wide range of types of job
- the IMS research had also shown that as labour market conditions changed, so did the importance attached to literacy criteria. In tight labour markets recruiters lower the standard required. Past experience had shown that staff with literacy difficulties, who under easier recruiting conditions would probably have fallen below the required standard, had generally proved satisfactory.

The questionnaire consisted of eight pages, of which six were 'active'. The front two pages included a statement from IMS explaining the questionnaire, plus notes of guidance on the classification of occupational groups.

For the first time in the UK we have operationalised an objective scale of level of basic skill, based on the ALBSU accreditation framework. This accreditation is necessarily complex, and in order to use it, we were obliged to shorten and simplify it for use in a questionnaire. Table 2.1 in Chapter 2 shows the truncated and simplified version of the scales which we used, and provides an overview of the sorts of competence required at each level within the four skill areas. Further details on the framework can be taken from the standards published by ALBSU, and from the documentation of the City and Guilds' 'Wordpower' and 'Numberpower' certificates.

The questionnaire was accompanied by a letter from ALBSU and the local TEC (and LEA where appropriate) inviting participation and explaining the importance of the study.

A1.3 Survey Process

Because of the number of individual surveys and the timing in which the individual TECs joined the BSAW initiative, the surveys were conducted in five tranches, each of eight weeks duration, over the period July 1991 to 1 May 1992. There are 11 TECs in the first tranche, 19 in the second, 12 in the third, 15 in the fourth and 16 in the fifth, bringing the total to 73 TECs in all.

Each TEC supplied to IMS:

- a definition of its geographical boundary, and,
- a breakdown of employment by SIC within the TEC.

Each tranche followed the same research process, which consisted of:

- the questionnaire
- a 'postcard' reminder after 3 weeks
- a 'letter' reminder with a further copy of the questionnaire after 6 weeks.

The questionnaires were accompanied by a letter addressed from ALBSU but also having the TEC logo on the letterhead to reinforce the partnership between the TEC and ALBSU and also to confirm the local nature of the research. TEC logos were supplied by the TECs for this purpose.

The data were processed by Research International and sent to IMS for analysis.

A1.4 Sample Size and Composition

The base sample size was one thousand establishments in each TEC area, bought in from a commercial database.

The sample was selected to match the composition of employment in each TEC area by SIC, and was then divided between six establishment size groups to give sufficient numbers of responses from larger establishments. A random sample not stratified by size would have produced a preponderance of small firms, with very few large firms. This sample, therefore, was not chosen in order to reflect the size composition of employing establishments. The sample size was necessarily reduced in smaller TEC areas, and/or where the selected database did not contain sufficient cases. Because of this the initial mail out size does not equal 73,000, but 69,282.

The actual sample used in this TEC area is shown in Table 1.1 of the report. In Table A1 we show the initial mail out numbers and the response rates by sector and size of employer. Overall there is little difference between response rates from the production and service industries, with response rates of 32 and 35 per cent respectively. However, this does hide some variation in response rate, with under-response from the Energy and Water Supply, Mineral and Ore Extraction, Metal Goods and Construction Industries, compensated for by an above average response from the Other Manufacturing Sector.

In terms of size, the response rates given for firms with under 20 employers and 'size not given' tend to confuse the picture. As explained above, we anticipated that the majority of firms not giving their size would be smaller firms, and this has proved to be the case. To get a more realistic picture then the numbers of mail outs and responses for firms with under 20 employees and size not given should be added together, which results in a 'joint' response rate of about 54 per cent. Given this, we can see that firms at either end of our size spectrum over-responded compared with the average and medium sized firms (between 20 and 99 employees), relatively under-responded.

Overall, although there are some variations in response rates these do not appear to be severe, and therefore we do not think that they will result in undue bias to the results.

Table A1: **Response Rates by Established Size and Sector**

Total Sample			
SIC	**Mail Out**	**Acheived Response Rate**	
Total	69282	24075	35
Agriculture	903	294	33
Energy and Water supply	844	195	23
Mineral and Ore extraction	2814	566	20
Metal Goods, etc	8125	2216	27
Other Manufacturing	7030	3142	45
Construction	3499	972	28
Distrubution, hotels	14600	5392	37
Transport and Communication	4050	1176	29
Financial Services	7340	2336	32
Other Services	20077	7161	36
Production Industries	23215	7385	32
Service Industries	46067	16065	35
Sector not given	0	625	
By Employment Size			
Under 20	1643	5528	336
20-49	28995	7849	27
50-99	15219	4525	30
100-199	8226	2720	33
200+	6651	2811	42
Not given	8548	642	8
Total	69282	24075	35

Further copies are available from:

Adult Literacy and Basic Skills Unit
Kingsbourne House, 229-231 High Holborn
London WC1V 7DA
Tel: 071-405 4017 Fax: 071-404 5038

£6.00

ISBN 1 85741 033

BEST COPY AVAILABLE